

THE MILLING WORLD

AND

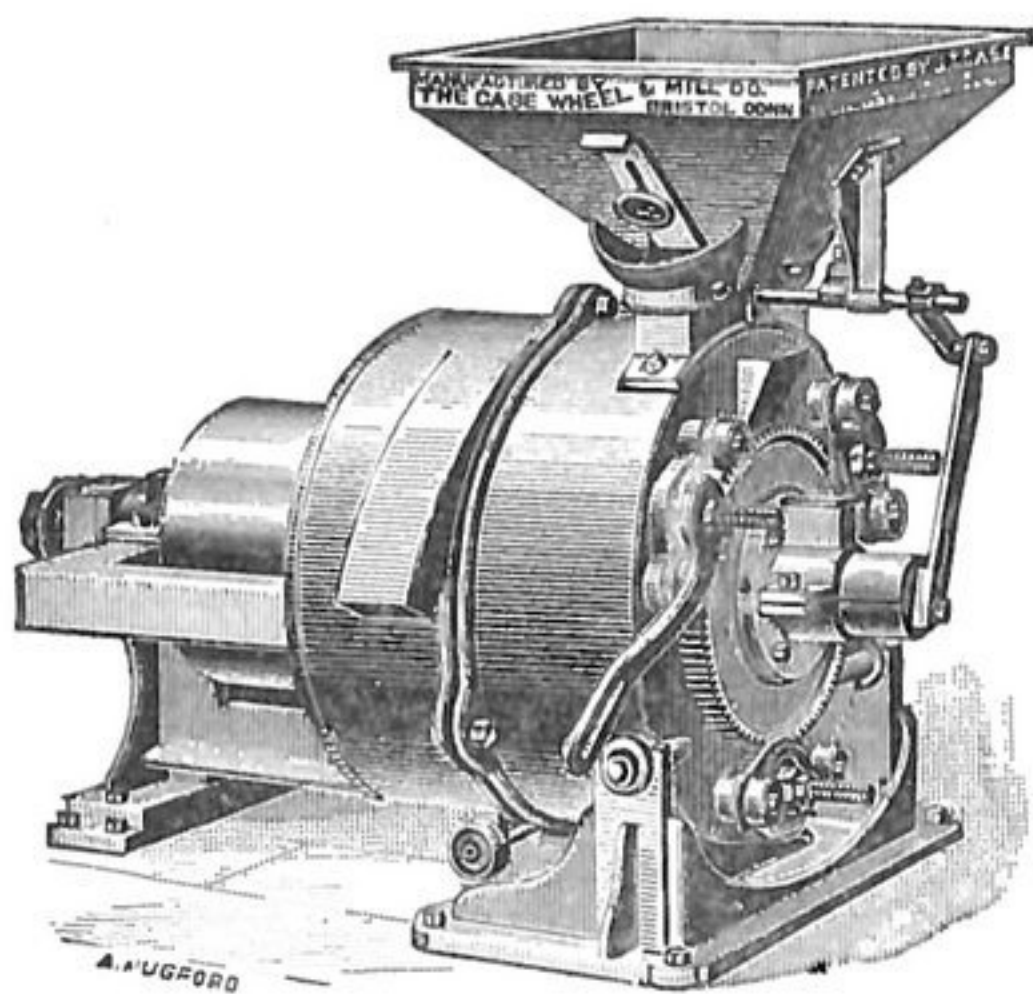
CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY MORNING.

VOL. XX. No. 5.

BUFFALO, N. Y., APRIL 1, 1889.

\$1.50 PER YEAR.



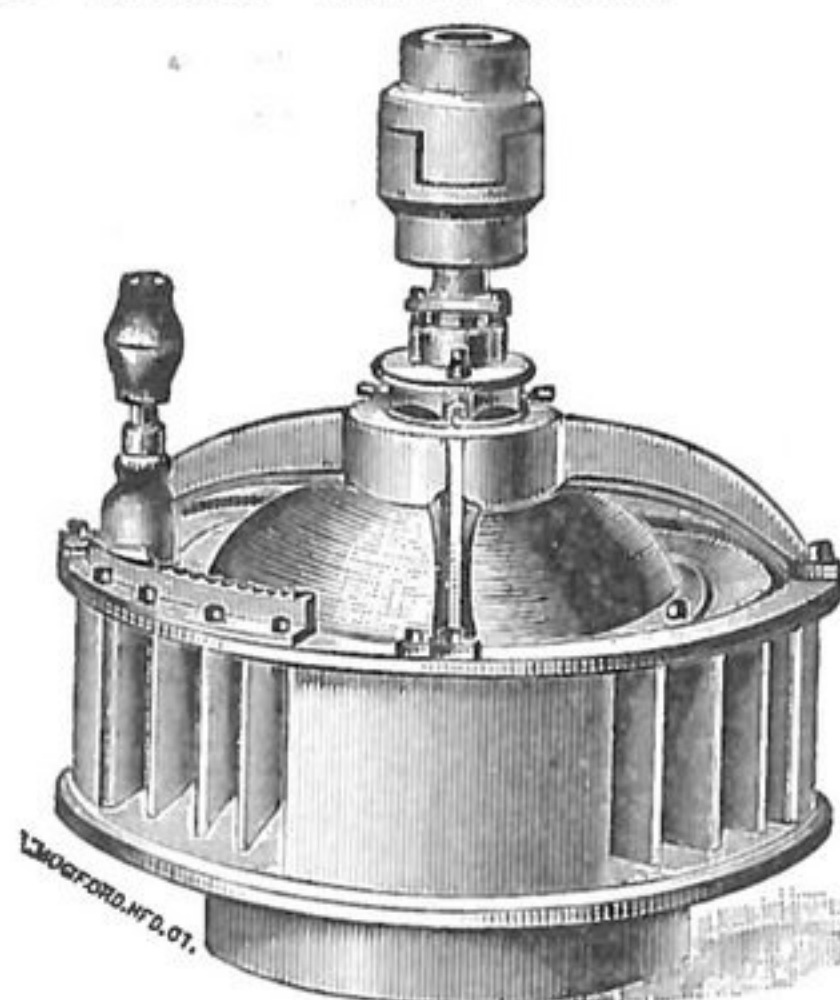
VICTORY OVER ALL OTHERS. SINGLE & DOUBLE VERTICAL GRINDING MILLS. (J. T. CASE'S PATENT.)

FACTS ARE MIGHTIER THAN ASSERTIONS. READ WHAT THEY SAY:

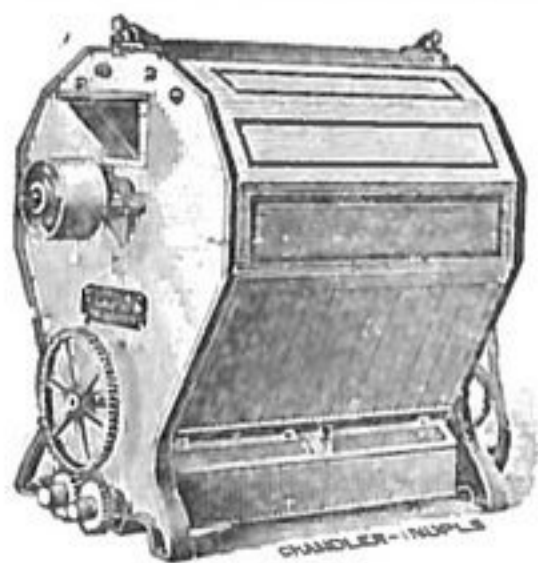
"Our 20-inch mill made by the Case Wheel & Mill Co. is in every respect satisfactory, easy to handle, and best results obtained of any mill in the country, with same quantity coal and power."—A. S. RUSSELL & Co., Meriden, Conn.
 "Superior to any mill in use."—GEO. WESTON, Bristol, Conn.
 "The best satisfaction in quantity and quality."—CHILD'S ELEVATOR, Manchester, Ct.
 "We take pleasure in recommending it."—GARLAND LINCOLN & Co., Worcester, Mass.
 SEND FOR CATALOGUE—ILLUSTRATED AND DESCRIPTIVE.

The Improved National Turbine Water Wheel

The Best for Economy; The Best for Durability; The Best for Power. ONE THOUSAND FIVE HUNDRED NATIONAL WATER WHEELS IN USE Prove that our Assertions are Supported by the Leading Manufacturers in the Country. Send for illustrated catalogue and prices to the manufacturers.

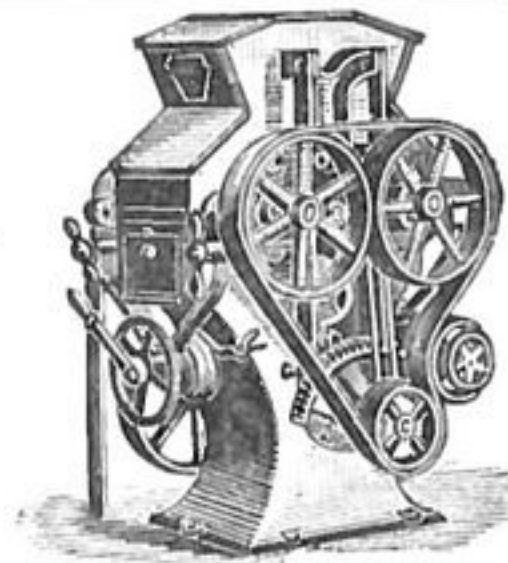


The Case Wheel & Mill Co., Bristol, Conn.



FOOD FOR REFLECTION

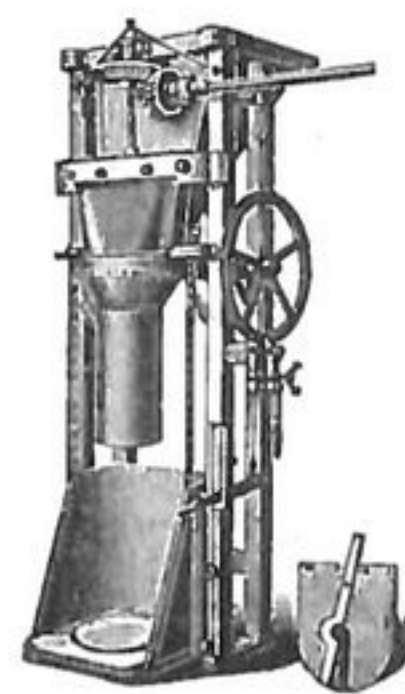
READ IT, AND DON'T FORGET IT



A Convincing Testimonial.

The following letter was written by a prominent Indiana firm of winter-wheat millers and published in one of the milling journals. It will explain itself:

"Seeing articles from time to time in the milling journals in regard to different mills, we would be pleased to furnish you with a short description of ours. Our mill was furnished and put up by the J. B. Allfree Co., of Indianapolis, Ind., and has been in operation since July, 1888. We have 75 barrels capacity, making three breaks on wheat and five on middlings. The rolls are known as the 'Keystone' and are very fine machines, as they are well built, have excellent adjustments and are supplied with an automatic feed which is perfection in itself, making in all light-running and very complete machines. The bolters are called the 'Success' and are built by the same company. This reel has advantages over any round reel we have seen. The lifters are so arranged that by the use of a lever they can be adjusted in or out, thus allowing the miller to confine or discharge the stock, according to his own judgment and the kind of stock being handled. The purifiers, bran-duster and packer are alike good machines and the workmanship is first-class in every respect. The wood-work, being finished with two coats of varnish, gives the mill a very fine appearance. The plant from the start has made an excellent grade of flour and we have had no trouble in competing or selling all we can make. There has not been a single change made, nor do we desire one. The clean-up is first-class and we think we have one of the finest little mills in the state. We give a standing invitation to any of our brother millers to visit our mill and examine its work. The string hangs on the outside and all are welcome. In dealing with the Allfree Co., we find them perfect gentlemen in every respect, and, while filling the contract in all particulars, they even did more than they agreed to. Wishing them deserved success we are respectfully,
 EMMONS & LEHMAN,
 Jamestown, Ind., Jan. 10.

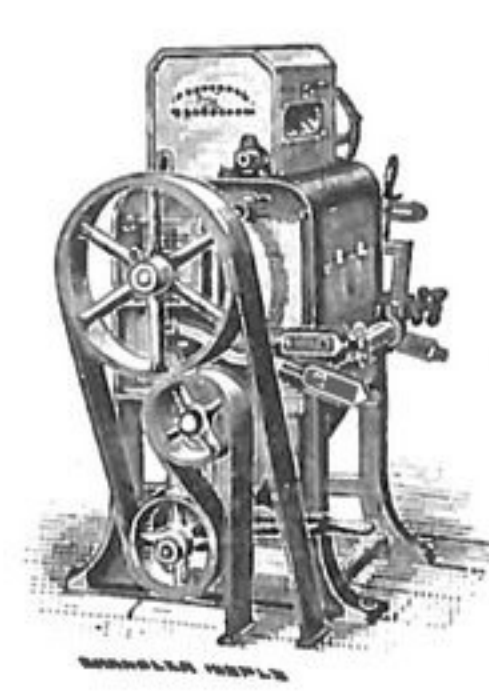


WHEN YOU WANT TO BUILD AN A NO. 1 MILL.

We Solicit Orders for Dufour Bolting Cloth.

—ADDRESS—

The J. B. Allfree Co., Indianapolis, Ind.



Some Millers' Opinions

EXPRESSED THIS YEAR, 1889.

SHREVE, O., Jan. 25, 1889.
THE CASE MFG. CO.

Gentlemen: We called at Bank Jan. 22d and paid our last note, which we believe closes our dealings so far as our contract with you for remodeling our mills is concerned. We want to say that we are entirely satisfied with all our dealings with you. Our mill is all we could expect, and is doing us good work. Extending to you our best wishes, we remain,

Very respectfully yours,
FOLTZ & BRENNEMAN.

—O—
WAVERLY, O., JAN. 27, 1889.
THE CASE MFG. CO.

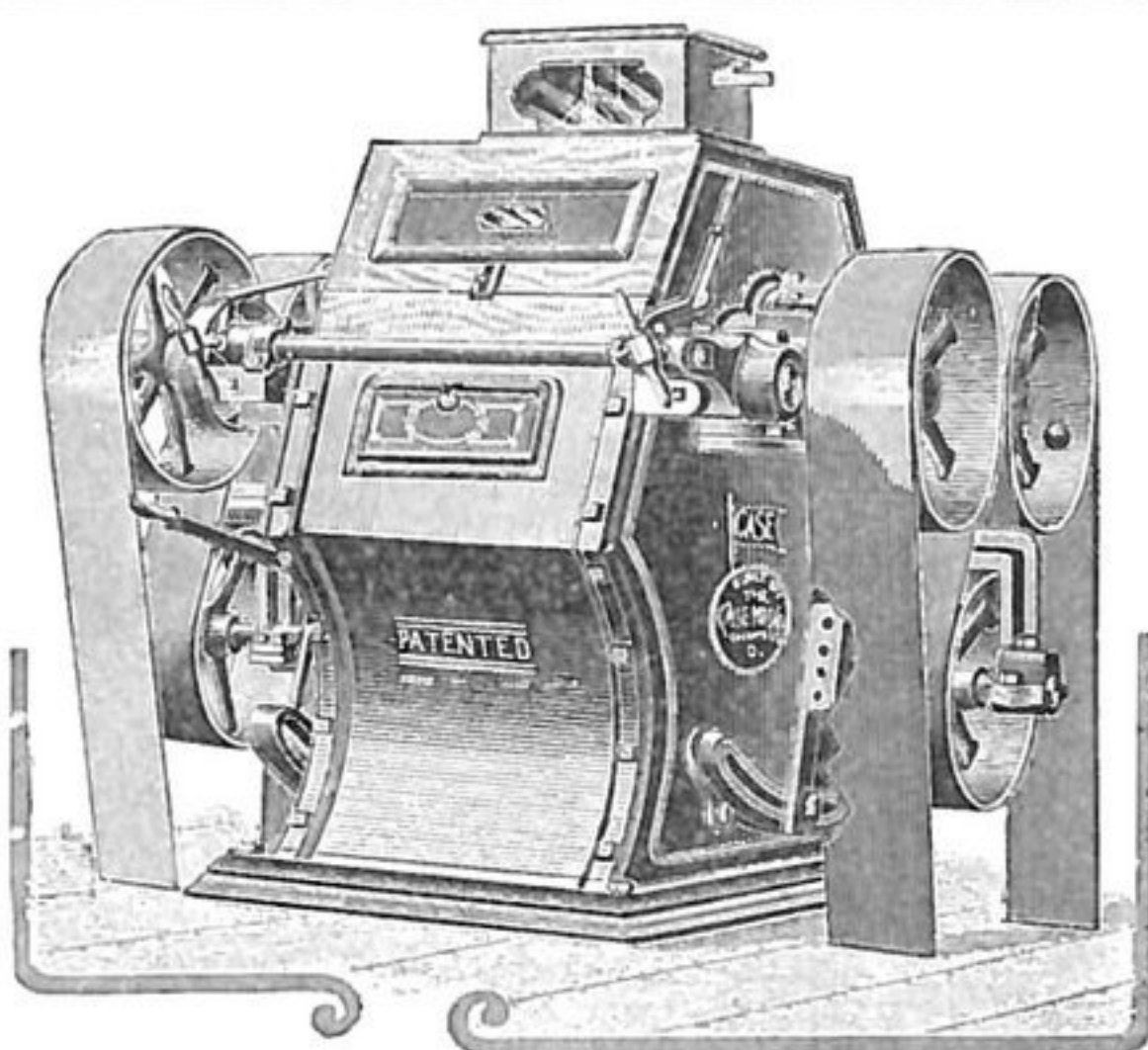
Gentlemen: Although it has been but a few weeks since I have gotten my Waverly Roller Mills started as recently re-furnished with your system of breaks and rolls, yet I have already learned to my satisfaction that your outfit of milling machinery is the best in use to-day. I am now making a grade of flour that is equaled by few and excelled by none, in fact superior to any flour produced in this part of Ohio, and is fast distancing all competitors in the market. I can conscientiously recommend you as General Mill Furnishers.

Yours truly,
JAS. EMMETT.

E. M. NEWTON. D. B. SMITH. G. TERRY.
OFFICE OF GUTHRIE MILL CO., }
GUTHRIE, KY., Feb. 26, 1889. }
CASE MFG. CO.

Gentlemen: Yours of the 20th to hand and in answer to inquiry about the five Inter-Elevator Flour Dressers bought of you will say that they are working perfectly satisfactory, and we regard them as being the best bolts we have ever seen, and if we had to build another mill, would use no other. We will take pleasure in showing and recommending them to any one who may be in need of a Flour Dresser. Wishing you much success in the future, we remain,

Yours truly,
GUTHRIE MILL CO.,
By E. M. Newton.



The Gem Roll of the World.

LEONIDAS, MICH., Feb. 4, 1889.
THE CASE MFG. CO.

Gentlemen: In reply to yours of the 31st ult., as to how I liked your machinery, would say I have a 3-break mill using 3 double stands of 6x18 Case rolls, one double stand of 6x15 rolls made by another firm. We started our mill September 1, 1888, and I must say *your rolls are more than you claim for them.* They started from the word "go." Not a single "hot journal," or any thing else to cause any trouble in the least. The other stand has been a continual bother from the start, running hot, and the feed would not work only in bunches, and let me say right here *that they cost me more money than the Case did.* and I mean in the near future to displace it by a Case. Your feed is *simply perfect.* It feeds even the full length of the rolls, and the beauty of all is we can stop and start the Case Rolls without touching a single lever; the other stands wants two men to stop and start. I also have a double stand of 9x18 Case rolls for feed. It does good work with half the power a 36-inch buhr took for same amount of work. Should you wish to send any parties here to see my mill at work, I can prove to them all I have said. With very best wishes to the Case Company, I am, very respectfully yours,

GEO. ENGEL
Successor to Espenhain & Engel.

WE BUILD NONE BUT FIRST-CLASS MILLS

AND WILL GUARANTEE

Each Mill We Build to Produce Results Excelled by None

COMPLETE LINE OF MILL SUPPLIES AT LOW PRICES.

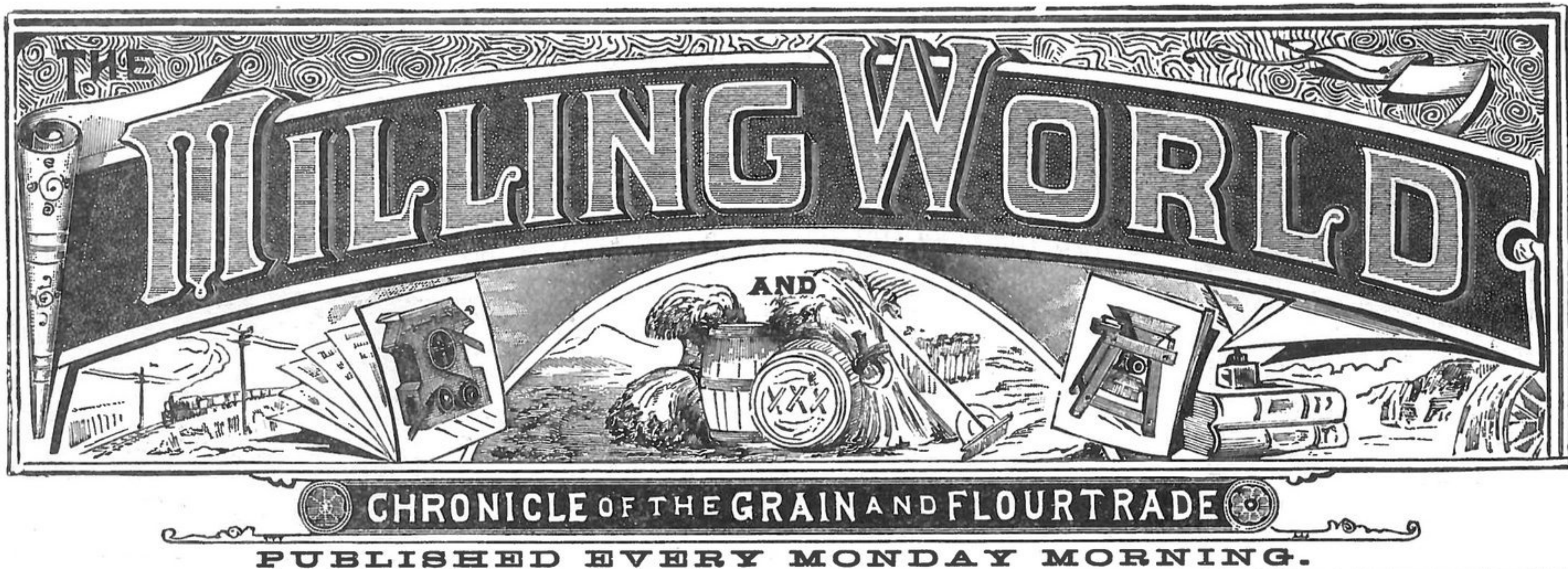
We have the most Complete Plant for Regrinding and Recorrugating Rolls, and put in Any Style Cut Desired.

MACHINE WORK OF ALL KINDS DONE PROMPTLY.

—ADDRESS—

THE CASE MFG. CO., COLUMBUS, O.

PLEASE MENTION "THE MILLING WORLD."



VOL. XX. No. 5.

BUFFALO, N. Y., APRIL 1, 1889.

\$1.50 PER YEAR.

THE business man whose mail does not bring him that excellent Chicago publication, "Daily Business," is sure to lose by his omission to subscribe. It is a neat, terse, concise, outspoken and independent journal, with any amount of Chicago push in it, and on business matters it is a regular encyclopædia.

THINK of it! Australia, that "majestic land in the southern hemisphere," with all "its illimitable capacity for wheat-growing," with all its "irresistible attractions for immigrants," is actually importing wheat from the United States! In one day, March 16, one wheat cargo of 75,000 bushels cleared from San Francisco for Australia, and four other cargoes, aggregating 275,000 bushels, were chartered. Since that date the Australian demand has continued, and it begins to look as though Australia, instead of becoming a reliable and important producer of wheat for Great Britain, is to become an important consumer of the wheat of the United States. It is curious to recall the predictions made of the damage to American wheat-growing that was to be wrought by Australia. Modern crop prophets are a very unreliable and ornery set of persons in every way.

WHEAT-CROP reporters must be greatly amused to see the solemn credulity with which their most ridiculous assertions are received. No statement which they make seems too ridiculous or too outrageously false to be believed, even by men who should know the absurdity and the falsity of the statement. An instance is given in the reports that indicate the destruction of wheat under the snow by chinch-bugs. The reporters probably do not know that the bugs do not work under the snow, but they make the statement, get paid for their "space" in the fake dailies and are contented, while the men who ought to know better go on swallowing their midwinter fake just as though it were gospel truth. These fakes are reprinted in European journals, and the idea gains currency that the American winter-wheat crop of 1889 is already hopelessly damaged. Millers can readily understand the nature and extent of the damage wrought by these conscienceless falsifiers and ignorant scribblers. A year ago the same crime against the grain-growing and flour-making industries was committed by these same fake dailies, and to-day both industries are suffering from that crime quite as much as from the shortage in wheat caused by the June frosts. There is of course no law against fake journalism, and the only way to treat the liars is to ignore their lies. Midwinter chinch-bugs and the yield of a spring-wheat crop not yet planted may safely be treated as humbugs.

STATISTICIAN Dodge estimates the 415,000,000 "measured" bushels of the wheat crop of 1888 to be equal to only 391,000,000 "weighed" bushels. This estimate will cause some curious confusions. For instance, the population of the United States is estimated at 65,000,000. Allowing $4\frac{1}{2}$ bushels per capita, the consumption for food will be 294,000,000 bushels. Manufacturers will take 15,000,000 bushels, and seeding will take 56,000,000 bushels. That means a total of 365,000,000 bushels. The exports up to March 1, 1889, amounted to 65,000,000 bushels. That makes a total of 430,-

000,000 bushels, or 39,000,000 bushels more than the crop of 1888. On March 16, 1889, the "visible supply" in the country was about 32,000,000 bushels. That increases the wheat total to 462,000,000 bushels, or 71,000,000 bushels more than the crop of 1888. It is estimated by some of the "experts" that the "surplus available for export" from March 1 to July 1, 1889, is about 50,000,000 bushels. That brings the wheat total up to 512,000,000 bushels, or 121,000,000 bushels more than the crop of 1888! In view of these confusing complications, we would like to ask what part of that 121,000,000 bushels may be accredited to "reserves" at the beginning of the year. The whole subject of crop-guessing and estimating seems to have about as much sense as a poker-club has morality. Query: Is the United States wheat crop made of India-rubber, that it is able to stretch so amazingly? We have heard of "paper wheat," and now we seem to be forced to acknowledge the existence of India-rubber wheat. We know that American wheat has a large percentage of gluten in its composition, but, until we read these latest mathematical gymnastics, we had no idea that even its large portion of gluten would enable it to expand from 391,000,000 bushels to 512,000,000 bushels! Hurrah for the American India Rubber Glutinous Wheat.

THE apotheosis of wheat, from its natural state, a heaven-sent berry, nurtured by kind nature, for the purpose of feeding hungry millions, into an article which is used as a wheel of fortune, upon whose upward or downward turn gamblers speculate and fortunes rise or fall, is a violent departure from everlasting true and natural laws.—*Minneapolis Slang-whangdoodle*. Heavens! How sad! Cease, ye trembling spheres, to run, and listen to the melancholy Minneapolis mooning! "Apotheosis" is good, very good! And "heaven-sent berry" is about as exquisite a ladle of verbal mush as we have ever seen outside the lackadaisical rot of the mill-poets! And "everlasting true and natural laws" is simply immense! The "apotheosis" of the "heaven-sent berry" is matched in iniquity and ridiculousness only by the autotheosis of the bumptious individual who penned the quoted wail over the gamblers. Crocodile-tears, sheet-iron theatrical thunder, green-gauze ocean billows, spurious agony and lycopodium cardinal lights of philanthropy and morality from Minneapolis can not "draw paying houses" in this great and glorious country. We all know the actor quite too well to see any thing but sham in his convulsions, cotton in his froth and common red paint in all the gore he slings around so liberally over the landscape. We suggest for him a good course of Turkish bathing, thorough massage, a purely cereal diet, total abstention from all spices, stimulants, intoxicants and indigestibles, and liberal doses of "rhubarb" to revivify his evidently congested liver. So much for the physical treatment. For mental treatment he should steadily contemplate the ineffable littleness of any one person in comparison with the "field," and he should strive to acquire a humility proportionate to the estimation in which he is held by those who know him best. Then the "apotheosis" of the "heaven-sent berry" will look less horrible to him, and he will be able to look on the average grain gambler without actually seeing the hoofs and horns.

The Canton Cabinet Filing Case Company, Canton, Ohio,

MANUFACTURERS OF

The New Buckeye Document Case & Letter File; Also All Kinds Office Furniture



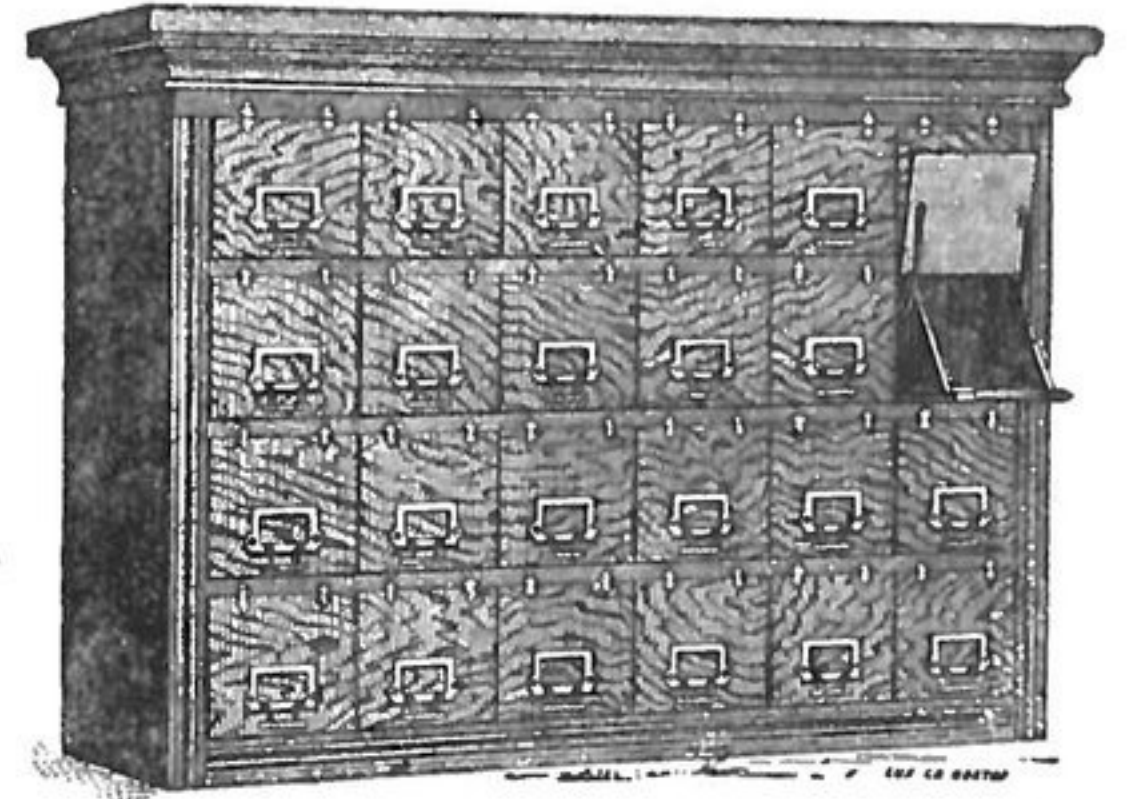
NO. 8.

NO. 8 Represents one side of one of our Revolving Cabinet Letter Files and Document Cases Combined. It contains 30 Document Drawers and 8 Letter File Drawers. In filing letters we use first VOWEL of name on front of drawer, and LETTER FOLLOWING first VOWEL on Index Sheet within drawer. We also make more exhaustive systems which contain from 6 to 100 or more Filing Drawers.

NO. 1 Represents one of our small Document Cabinets, for use on desks or brackets. Action of drawer can be seen in the cut. When front is raised inner drawer comes forward, exposing contents of drawer for inspection.

Our Cabinet Files are Conceded to be the Most Convenient of Any in the Market. They are Compact, Simple, Complete, Durable and Ornamental.

SEND FOR PRICE LIST AND CATALOGUE.



NO. 1.

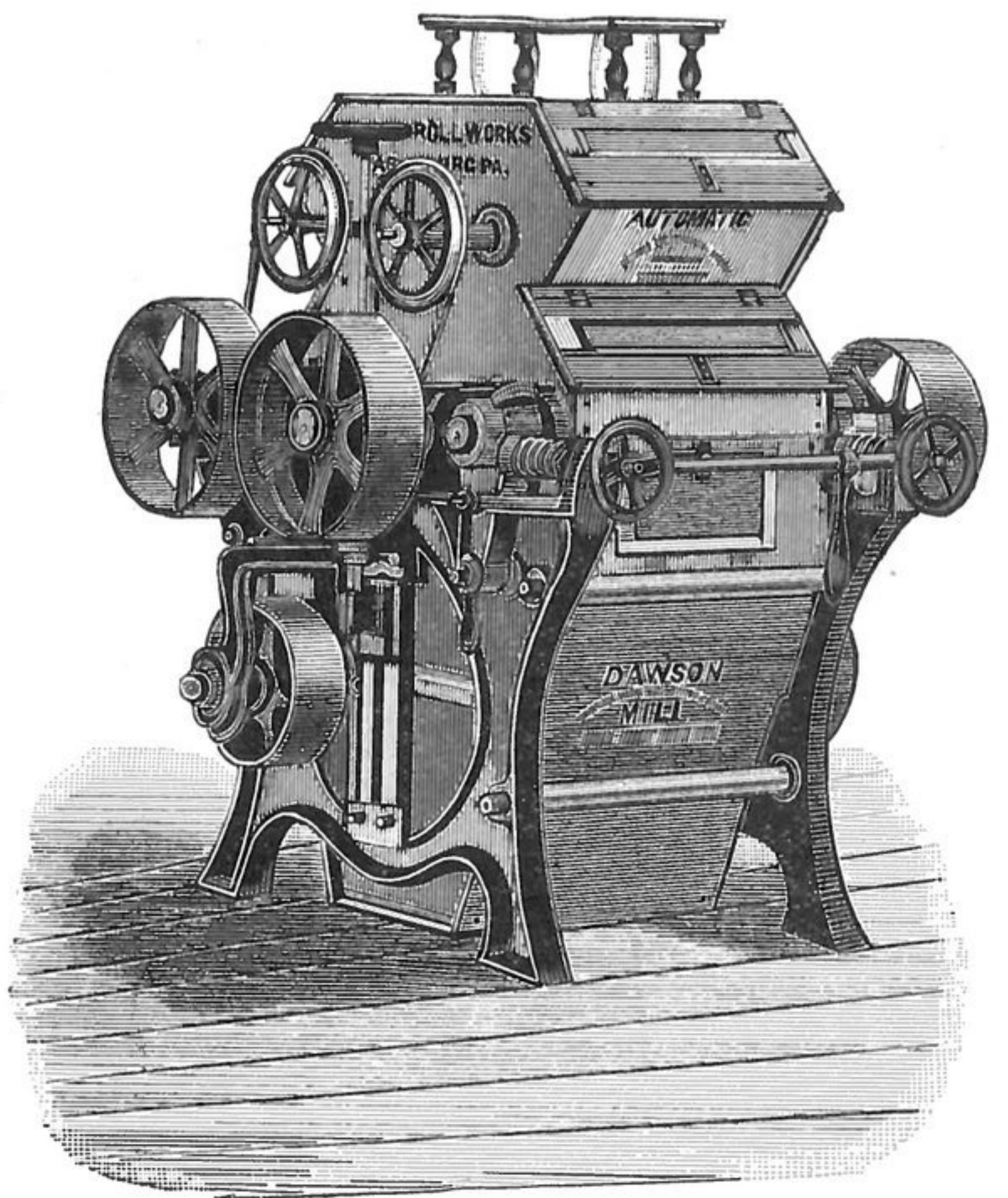
Dawson's Roller Mill

Is acknowledged to be the very best in the market. It has our Patent Automatic Centrifugal feeder, never failing to feed the stock the full length of rolls in an even sheet. It is the Latest and Best feed out, uses less power and is simple in construction. It can be placed on any style of machine with little expense. We use for roll bearings phosphor-bronze metal which will admit rolls being run at any speed without heating and with little friction, and uses little oil. We use the Dawson Corrugation, which is admitted the best in long or short system mills as the action is granulating rather than CUTTING.

We have a large plant to Re-grind and Re-Corrugate Rolls.

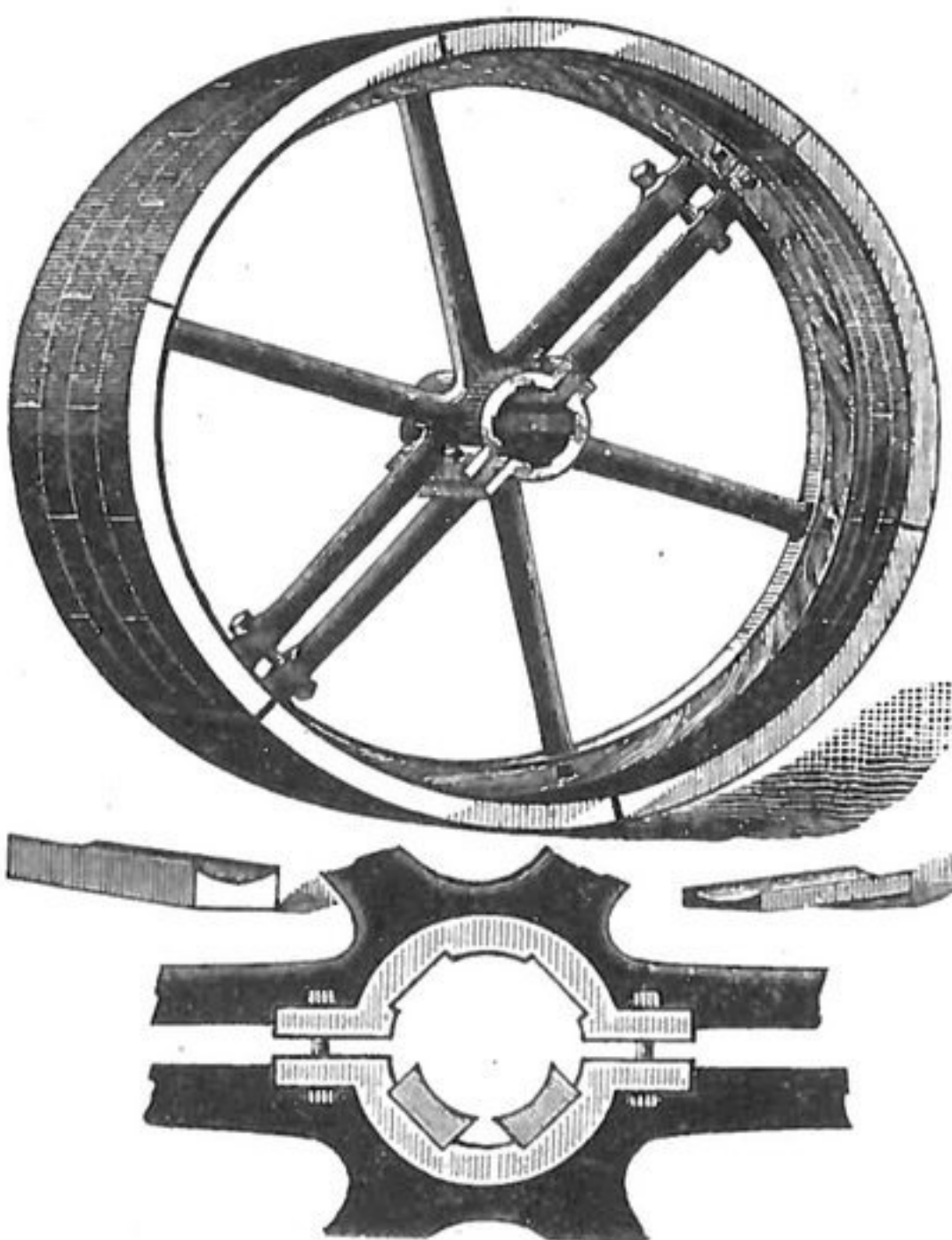
Owing to our late increased facilities and central location we are enabled to ship goods promptly on the shortest notice.

PARTIES CONTEMPLATING REMODELING THEIR MILLS OR BUYING ANY ROLLER MACHINES ARE REQUESTED TO PUT THEMSELVES IN CORRESPONDENCE WITH US.



FOR PRICE LISTS AND CIRCULARS, ADDRESS,

Dawson Roll Works, Harrisburg, Pa.



C. H. BIRD & CO., KALAMAZOO, MICH.

MANUFACTURERS OF PATENT

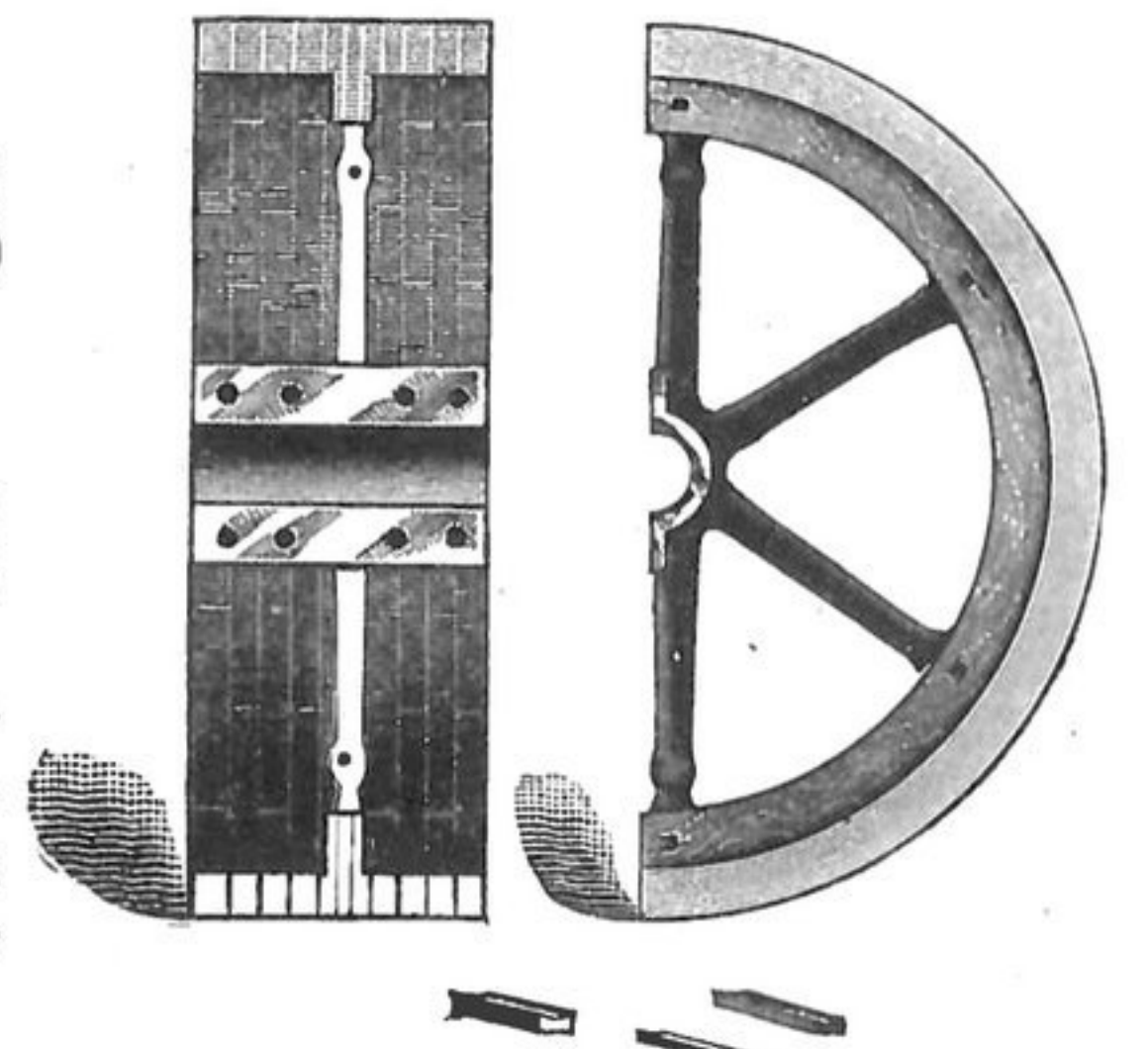
Wood Split Pulleys

WOOD RIM WITH IRON ARMS.

The Best Pulley on Earth!

Is very easily and quickly adjusted to Shaft. Has Patent Iron Bushings Interchangeable, to Fit Different Diameters of Shafts. Has FOUR or SIX Bearings on Shaft. This fastening never slips. Every Pulley strongly built and perfectly balanced.

SEND FOR CATALOGUE AND PRICE LIST.





PUBLISHED EVERY MONDAY. OFFICES: { Corner Pearl and Seneca Streets,
Over Bank of Attica.
McFAUL & NOLAN, - - - PROPRIETORS.
THOMAS MC FAUL. JAMES NOLAN.

SUBSCRIPTION.

In the United States and Canada, postage prepaid, \$1.50 Per Year, in advance; remit by Postal Order, Registered Letter, or New York Exchange. Currency in un-registered letter at sender's risk.
To all Foreign Countries embraced in the General Postal Union, \$2.25 Per Year, in advance.

Subscribers can have the mailing address of their paper changed as often as they desire. Send both old and new addresses. Those who fail to receive their papers promptly will please notify at once.

ADVERTISING.

Rates for ordinary advertising made known on application.
Advertisements of Mills for Sale or to Rent; Partners, Help or Situation Wanted, or of a similar character One cent per word each insertion, or where four consecutive insertions are ordered at once, the charge will be Three cents per word. No advertisement taken for less than 25 cents. Cash must accompany all orders for advertisements of this class.

Orders for new advertisements should reach this office on Friday morning, to insure immediate insertion. Changes for current advertisements should be sent so as to reach this office on Saturday morning.

EDITOR'S ANNOUNCEMENTS.

Correspondence is invited from millers and millwrights on any subject pertaining to any branch of milling or the grain and flour trades.

Correspondents must give their full name and address, not necessarily for publication, but as a guarantee of good faith.

This paper has no connection with a millfurnishing house and aims to represent the trade without prejudice, fear or favor.

Address all communications

THE MILLING WORLD,
BUFFALO, N. Y.

Entered at the Post Office, at Buffalo, N. Y., as mail matter of second-class.

SITUATIONS WANTED.

Advertisements under this head, 25 cents each insertion for 25 words, and 1 cent for each additional word. Cash with order. Four consecutive insertions will be given for the price of three.

SITUATION WANTED.

Situation wanted by practical miller of 30 years' experience, 50 years old. Best references. Would take good mill on shares. B. D. FOWLER, Carlton, N. Y. 47

WANTED.

Situation by a miller of 10 years' experience. Thirty-one years of age. Married. Can give best of reference. Address, ANDREW YOUNG, Box 82, Mayville, N. Y. 25

WANTED.

A situation in a mill, by a married man of steady habits; 34 years old; no children; had three years' experience in a custom mill; can furnish best of reference. Address, CHAS. BETTIS, Forestville, N. Y. 24tf

SPECIAL ADVERTISEMENTS.

Advertisements of Mills for Sale or Rent, Partners Wanted, Machines for Sale or Exchange, etc., etc., cost 1 cent per word, for one insertion, or 3 cents per word for four insertions. No order taken for less than 25 cents for one insertion, or 50 cents for four insertions. Cash must accompany the order. When replies are ordered sent care of this office, 10 cents must be added to pay postage.

MILLSTONES FOR SALE CHEAP.

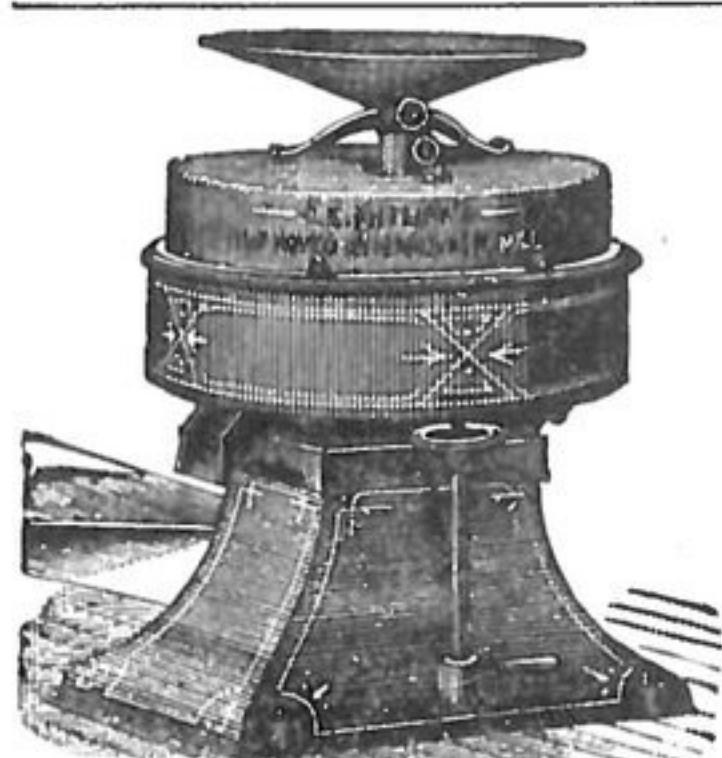
Complete run of millstones, curb, spindle, hopper, etc. GARDNER MORSE, Eaton, Madison county, N. Y. 16

MILL PROPERTY FOR SALE.

In Central New York, on reasonable terms and easy payments. For particulars address B, care of THE MILLING WORLD, Buffalo, N. Y. 14

FOR SALE.

10 Single Sets 9x30 Stevens Rolls.
2 Single Sets 7x12 Ferriers Rolls.
2 Centrifugal Reels.
2 No. 3 Niagara Bran Dusters.
2 No. 3 Prinz Dust Collectors.
1 No. 4 Hunter Purifier.
1 No. 6 Garden City Purifier.
1 No. 1 Pyne Purifier.
1 No. 3 Richmond Brush Machine.
1 No. 2 Silver Creek Scourer.
1 No. 00 Becker Brush Machine, over 50 Run Millstones all sizes, all complete.
Above Machines are in first-class condition and practically as good as new. Address J. B. DUTTON, 115 E. Fort Street, Detroit. 18tf



HORIZONTAL (underrunner.)

If you are desirous of obtaining the best Mill or Cob Crusher, send for our catalogue and be convinced that our's fill the bill. Can not fail to please you. They are guaranteed to prove as represented.

C. C. PHILLIPS,
OFFICE, 20 SOUTH BROAD STREET,
PHILADELPHIA, PA.

NEVER-FAILING WATER-POWER

FOR SALE OR TO LET.

Situated at the junction of two rivers, 95 miles from New York City, on the West Shore Railroad. Mill site against track. A NATURAL ROCK DAM with from one hundred to one thousand horse power. Railroad siding on premises. Station, post and telegraph offices in sight. Factory employees to be had at low wages. Further particulars given by addressing.

HOWARD FINGER, - - SAUGERTIES, N. Y. 411

FOR SALE OR RENT.

Grist-mill; three-run stone; splendid water power; good shipping point; rent reasonable. For particulars address, M. D. OLNEY, Irvine, Warren county, Pa. 58

FOR SALE OR EXCHANGE.

For sale or will exchange and take a good portable saw-mill as part pay, a new buckwheat and feed mill, situated in the village of Hadley, Pa. Mill has side-track to door of L. S. & M. S. R. R. on one side and public road on the other. Was built new last summer; plenty of power for a roller mill on wheat; has 30-horse-power engine. Write for particulars to H. L. AVERY, Hadley, Pa. 5

OPENING FOR FLOUR MILLS.

Mill owners can hear of an extraordinary opening for cheap labor, transportation and a rapidly increasing supply of cereals by addressing the undersigned. This great, fertile region is just beginning to cut up its vast pastures into farms, and agriculture is increasing rapidly. Colonization and immigration in steady progress. Transportation by sea and rail. This is the coming deep water seaport and commercial city of the Southwest and Mexico. Nearer to the heart of the Northwest 1,000 miles, than New York or any Atlantic port. Write for details. THE PORT ARANSAS COMPANY, Corpus Christi, Texas 5

MILL MACHINERY FOR SALE.

One 24-Inch Portable Mill, wood frame, capacity 15 to 20 bushels per hour; new, best make.
One 20-Inch Portable Mill, iron frame, capacity 12 to 16 bushels per hour; new, best make.
One No. 0 Standard Combined Separator, Smutter and Brush Machine; new, best make.
One 18-Inch Vertical Portable Mill, French Buhr Stone, hung on horizontal shaft; capacity 25 to 40 bushels per hour; new, best make.
One 14-Inch Vertical Feed Mill; best make, new, a bargain.
One No. 6 Dustless Separator; new, a bargain.
Two No. 4 Scientific Grinding Mills, capacity 40 to 50 bushels per hour; new.
A Lot of Elevator Buckets, brand new, best make, any size desired, very cheap.
One No. 1 Full Rigg'd Combined Dustless Separator; new, a bargain.
Four Corn Cob Crushers, right or left hand, driven from above or below, best make; capacity 40 to 60 bushels per hour.
For particulars address, FRANK SMITH, care of THE MILLING WORLD, Buffalo, N. Y. 5tf

Is a flour-trust or a wheat-trust possible in the United States? Read the answer in the fate of the collapsed French copper syndicate. That trust set out to corner the copper of the world and put nearly \$90,000,000 in the pot. Now it gets about \$60,000,000 out of the pot, leaving \$30,000,000 to loss account. If it be impossible to corner the copper supply, where only \$100,000,000 would be required, what prospect is there of cornering a wheat crop like that of the United States, where at least \$390,000,000 would be necessary? Corners are always sure to collapse. When a corner swings out its sign, the world swings against that corner, whether it be in wheat, lard, rails, sugar, oil or copper. The corner is fast degenerating into a diminutive nursery bugaboo. There is scarcely a man in the United States so ignorant as to do the corner or the trust the reverence of a single thrill of fear.

THE folly of holding back wheat in the face of abundant Russian crops and of supplies to be drawn from all parts of the world, every month in the year, by the importing countries of Europe, is once more made painfully evident to the American owners of wheat. Late in March the New York markets settled to the European notch, but the British and French millers, who had been unable to get American wheat and had taken Russian wheat instead, refused to switch back to American wheat unless they could get it at lower figures than they were paying for the Russian grain. They shrewdly played their cards to get good American grain for less money than they were paying for not so good Russian grain. The American dealers have placed themselves in the power of the European dealers and millers, and the latter naturally propose to use that power to serve their own interests. Indian wheat of the present crop will be in the European markets inside of another month or six weeks, and its arrival means another difficulty in the way of disposing of the available American surplus at reasonable prices. Should the summer of 1889 repeat the abundant crop of Russia, with an average in the other European countries, the wheat markets next fall will be dead enough to bury. The season is opening well in the United States, and, so far as indications go, the outlook is for a large crop, and the American holders of wheat, who propose to keep a hold on European markets, will do well to let slide all their available supplies whenever the prices offered for them are reasonable. They have foolishly switched their best customers off to other sources of supply. Their chief work in the near future will be the switching of them back to American sources.

POINTS IN MILLING.

MANY millers assert that the wheat of the crop of 1888 requires closer to five bushels to make a barrel of flour than any other figure. This is particularly true in the case of wheat from the northwestern regions, although much of the winter wheat also comes in at 4.40 and 4.50 to the barrel. Next season's crop will make milling seem holiday work in comparison with this season's wheat.

How many millers take the trouble to learn just how their flour stands with the bakers who use it? Too many are inclined to depend wholly upon the word of the dealer. Not long ago a miller told me that he was suddenly having trouble with the dealer to whom he sold. He began to complain of his flour, saying that consumers criticised it and pronounced it "off." He had made no changes in grade or variety of wheat. His work was as carefully done as ever. The flour seemed exactly like what he had sent out for years. Yet the dealer grumbled and wanted a lower price, urging that the flour was not up to the notch. He asked my advice. I suggested that he should go and learn from the consumers what the trouble seemed to be. He asked the dealer to name the complainants, and, not suspecting what he was about, named two bakers who used large quantities of his flour. He visited these bakers and was surprised to hear them say that they were perfectly satisfied with the flour and had never complained to the dealer about it. That miller's eyes were opened, and that dealer does not now handle that miller's flour. Similar cases have frequently come to my notice, similarly sifted, would reveal the same low-grade dishonesty on the part of the dealer. No miller should allow himself to be stampeded. It is the dealer's right to get out of the miller the highest possible grade of flour at the lowest possible cost, and it is equally the miller's right to get out of the dealer what the flour is really worth.

MANY a miller is wasting stock, time, labor and money in allowing bran and impurities to be returned in separating. Economy and common-sense indicate that it is better to use a separator before sending to the flour-reel. If wheat grain were uniform throughout the year, there would be no necessity for using different cloths to take flour from; for instance, every thing passing over No. 12, from wheat that is not too soft, will be sharp middlings that can be easily purified. If coarse cloth is used at the head of the reel and the flour is still looking clearer than at the tail end, it is easily understood, as even when the flour is specky at the head of the reel it is concealed, because the flour bulk is clearer, while at the tail end there is a much larger proportion of specks, which, therefore, are more easily distinguished.

SAYS R. James Abernathy: The second break in an elaborate system is but little better than a scouring process, but far too much flour is made to allow of its going into the feed-bin. There is almost as much crease-dirt in the second-break product as in the first, for the reason that the small grains of wheat pass through the first-break rolls unscathed, but are caught in the second. However, crease-dirt or not, the product of the second break is scalped and the flour and middlings are sent off to be further treated, the flour finding its way into the "fancy" or "baker's" bin, and the middlings traveling the narrow but crooked way of all middlings, resting finally as flour, part in the "patent" and part in the "fancy" bin.

Is there really any thing "settled" in connection with modern milling? This question is asked by some, who evidently doubt the evidence of their own senses. "Modern milling" of course means roller grinding and the treatment of middlings. Here are some points that may be accepted as conclusively "settled:" 1. That in order to make the best and purest flour, we should seek to obtain the largest possible percentage of middlings. 2. That to prevent loss of flour all the different grades of middlings must be thoroughly dusted

before going to the purifying machines. 3. That very careful handling of them is necessary to avoid waste by breaking or reducing them to flour while being subjected to the process of purification. 4. That they should be carefully graded, and each grade treated separately on a purifying machine, clothed especially to suit such grade. 5. That the coarsest middlings, owing to the fact that more or less bran particles adhere to and are mingled with them, require treatment on aspirators and sizing rolls so that the lighter impurities may be eliminated at this point. 6. That the process of purification must be repeated until all the different grades are practically free from impurities. 7. That it is bad practice to return middlings to or run them a second time over the same machine, or seek to repurify them by returning from one machine to another, over which the product has once passed. 8. That to secure the best results in granulating winter-wheat middlings, ten to twelve, and in some instances perhaps even a greater number of reductions would be necessary. 9. That smooth rolls for reducing or granulating all the different grades of middlings have proved to be superior to any other machine or device so far used for this purpose. That array of "settled" points constitutes a very satisfactory basis upon which to found the claim that "modern milling is an exact science." Then add all the other conclusions about cleaning and all other manipulations, based on practice and confirmed by experience, and it is easy to make out quite a clear case that milling is a science, established and exact.

NO MILLERS OR BAKERS IN SHEOL.

A strange legend bearing the stamp of mediæval manufacture is said to be still current in Lower Austria, and as this tale is concerned with millers and bakers, it may be worth relating here. Once on a time, so the peasants of Lower Austria say, the arch enemy of mankind took stock of his dominions. He found all sorts and conditions of men, but noticed to his great mortification that there was not a single representative of either the milling or the baking trade. He accordingly dispatched one of his trustiest messengers with peremptory instructions to visit the earth and bring down with the least possible delay a member of each of the unrepresented branches of industry. Now Satan's emissary, accustomed to implicit obedience, made no remark, but at once spread out his wings and made his way upon earth; yet he felt exceedingly puzzled how to act, as he had never even seen a miller, which speaks volumes in favor of the honesty of the mediæval representatives of the dusty craft in Lower Austria. Like a prudent individual, he made inquiries, as soon as he reached the earth, concerning the appearance and habits of millers, and he was told that they were quite white and usually found in the neighborhood of brooks. This intelligence pleased the fiend very much; he had come from a sultry clime, and the idea of a trip to green pastures and bubbling brooks was inexpressibly grateful to him. He soon got on a country road, and, as luck would have it, he had not walked a quarter of a mile before he passed a meadow in which a white horse was contentedly grazing on the sweet spring grass. The fiend looked long and hard at the horse; he saw something that was perfectly white; he could also hear close by the song of a rivulet as it tumbled down a hillside, splashing for very glee the pebbles that lay in its path, and he might well be excused for jumping to the conclusion that at last his prize was before him. He said to himself, "the miller has left his brook for once, and I may as well take him off his guard." So he crept up with slow and stealthy steps to the white shape and seized it by the hind-quarters, but only to receive a kick on the shin, from which, according to the story, he has limped ever since. At any rate he was so injured that he was compelled to return without either miller or baker, and over his reception from his master the legend draws a discreet veil. But we are informed that those servants of the arch destroyer who were sent to carry out the errand which the first messenger failed to accomplish had no better success, and it is said that up to the present time the infernal regions know neither a miller nor a baker.

ALLEGED MILLING POETRY.

THE WATER MILL.

There it stands in the valley,
'Neath the brow of the hill;
So busy in early morning,
Now all sleepy and still.
Over it droop the branches
Of many a giant oak,
Wrapping the ancient structure
Well in their leafy cloak.
Smoothly glides the streamlet,
No ripples disturb its calm;
And stately yellow lilies fill
The evening air with balm.
Loosed from its rush and labor,
The great wheel stands at rest,
Only to turn the waters
To-morrow with greater zest.
So may earth's weary toilers
After life's storm be still,
Calm, and quiet, and peaceful,
Like the old water mill.

Constance Cross, in "The Roller Mill."

AGONIZED INTERROGATIONS THEREON.

How queer that "it stands in the valley"!
Why does n't it stand on the hill,
So the "streamlet" might slantindicular up sally
O'er "the brow of the hill" to spill?
Why so "busy" in early damp morning?
Why now so "all sleepy and still"?
Has the dandy old Dusty gone gin-horning
And filled himself up to the bill?
One "giant oak" droops over nearly an acre,
And "many" droop over this mill!
For size it must be a cake-taker,
This mill "'neath the brow of the hill"!
How kindly they are in their wrapping
Their leaf-cloak around this old mill,
As it lies all so silently napping
While the old man is full to the bill!
But how "smoothly glides the streamlet,"
Without "ripples" disturbing its calmlet?
Is n't that a mysterious dreamlet
Suggesting a terse little damlet?
And the "balm" from that tall "yellow" lily!
Whew! Burn a rag! Whew! Is that "balmlet"?
It slugs one's proboscis quite silly,
Suggesting a No. 2 damlet!
Is the wheel really "loosed" from its rushing?
Or really rushed from its "loosing"?
Is it "labor" for the wheel to go gushing?
Is "standing at rest" joy-inducing?
Will the wheel "turn the waters to-morrow,"
Or the waters go turning the wheel?
Will they tote the old man home on a barrow
And sober him off on spoiled meal?
So may all earth's tired, saddened readers,
After 10,000,000 poems on mills,
Hope the last of these old-poem-breeders
May be burned from its peak to its sills!
That the lightnings may splinter the oaks
That "shadder" the groaning old wheel,
And that mill-poets sport winter-cloaks
As they wander about in warm Sheol!

Incessantly Cross.

BUG-GOSH!

The chinch-bug chaws up the wheat galore,
The Hessian bug chaws the balance some more,
The army bug repeats the chawing o'er,
The fire bug chaws the grain that 's in store,
And every bug that chances along
Chaws up the wheat with molars strong,
But of all the bugs that bother the wheat,
'Tis *Humbug* that takes the proscenium seat!

Duluth, Minn.

Bang.

PREVENTION OF BOILER EXPLOSIONS.

Below is an abstract from an article on the cause and prevention of boiler explosions by Mr. A. J. Wright, of Cleveland, O., to which attention is called. After reciting the history of explosions and the reports of inspections for 1888

and asserting that low water is more frequently the cause of explosions than is generally supposed, the author says: "We have evidence other than theoretical tending to the same conclusion. The experience of steam-users with Reliance safety water-columns is that they whistle for low water about once a month, on the average, even where the best help and most perfect regulations prevail. This may be hard for people without experience with reliable safeguards of this kind to believe, but it is a fact which can be easily demonstrated, and to it is largely due the action of many of the large corporations in throwing out the ordinary combination and equipping all their boilers with these appliances, after learning their value through practical experience. It is clear that the water in steam-boilers becomes low oftener than most people suppose, likewise that the boiler is weakened more or less every time it becomes low; and there is no room for doubt that it may ultimately give way with plenty of water in it and even without the contributory assistance of ignorance, negligence or even over-pressure, in which event it is no less the result of low water than if it had occurred when the water was low.

"In this conclusion, and the evidence leading to it, may, we believe, be found the true solution of many mysterious boiler explosions. What then is the remedy? First, no matter whether your boilers are new or old, get them insured in some company of recognized standing and noted particularly for the thoroughness of its inspection. This means a great deal more than appears on the face of the advice. It means that if the material or workmanship is defective, or in other words, if improperly riveted or insufficiently braced you will find it out at once, and if the setting is defective or the furnaces out of shape, you will be advised and will have to repair the defects before the company will accept the risk. Nor is this all. It means that if the safety-valve is overloaded or defective you will know it, or if your boilers have been dangerously burned, blistered, corroded or grooved, you will have an opportunity to prevent loss of life and property by repairing them, before you can get the insurance; and that if they are seriously scaled or filled with sediment that you will have to remove it at once, and then perchance have some patches put on. Perhaps your boilers may be condemned, but you can go to bed and sleep at night with the satisfaction of knowing that the boilers are safe and that you have done a duty to yourself, your employes and the public, and at the same time made a good investment, for it also means that so long as you keep your boilers insured the company will, so far as possible, by periodical and systematic inspections, keep your plant in the condition in which it compels you to put it at the outset.

"But how about the low water? The company's inspectors can not prevent it except so far as keeping the appliances in working order are concerned. The inspector may find your boiler in first-class condition to-day and the water may get low and weaken it to-night while you sleep. Or the same result may be brought about by the stopping of a pump, by foaming, by leakage, or as a result of carelessness, ignorance, drunkenness, or what not, within the period of one year between inspections, and result in an explosion as disastrous and fatal as any of those which have horrified the country within the past month, before the inspector gets around again. A boiler may be inspected to-day and found to be safe under a working pressure of 100, and be weakened to-night by low water so as to be dangerous to-morrow with 50 pounds pressure. It may explode a month hence with 60 pounds pressure and plenty of water, but the cause is as certainly low water as if it had exploded when the water was low. There is but one sure remedy, and it is a simple one. Put on a safety water-column, a real safeguard, something simple, which has been tried and proven to be trustworthy by steam users whose judgment can be relied upon. The result will be highly gratifying. By and by some accident will happen and you will hear it whistle unexpectedly, and on investigation you will find that no one was directly blamable for the water becoming low, and will see that the little whistle brought brains to the rescue. You will sooner or later hear of its attracting the watchman's attention at

night in ample time to obviate any serious results, and when you begin to get acquainted with the appliance and investigate its workings you will discover that it has saved its cost in fuel by keeping the water at the proper level, and at the end of the year you will find a very small item opposite the 'repairs to boilers' in the expense account."

BRAN IN BREAD NOT HEALTHFUL.

According to a French investigator, Aime Girard, bran is not a good substance to be used in bread. He sums up his investigations as follows: Cereals, especially wheat, have been for half a century the subject of numerous researches, and the matter of their best adaptation to the needs of the human system is a question still sharply discussed. According to some authorities wheat should be eaten in its entirety; according to others certain parts ought to be rejected. These differences of opinion having engaged my attention for several years, I have made a study of the chemical composition of the wheat berry as a food product, not merely in its entirety, as M. Peligot did in 1850, but taking the different portions separately and investigating each portion by itself. I divided the berry into three principal parts, the husk or bran, the germ and the floury portion. To separate these three parts exactly is a delicate operation. To accomplish it I immersed the berry in distilled water until it began to grow soft and then split it. I then scraped the farinaceous matter out of the husk, leaving the latter free of flour and germ. By drying and weighing it the proportion of husk was determined. To separate the germ I took more wheat and split it dry. The germ clung to one of the halves, from which it was easily removed. On weighing the three separations thus obtained, I found that the average wheat grain divides as follows:

Husk..... 14.36 Germ..... 1.43 Floury matter. 84.21

The anatomical structure of the husk is well known, having been shown in 1838 by Payen and definitely established by M. Treuil in 1836. It consists of the pericarp and testa, the tough outer bran as millers call it, and the endopleura and tegument, the inner bran. Submitted to analysis as a whole, the husk is found to be rich in nitrogenous, fatty and mineral matters. I obtained 18.75 per cent. of nitrogenous, 5.6 of fatty and 4.68 of mineral. These elements are distributed very unevenly through the different coatings. By the use of the microscope and a close analysis of the several coatings, the analysis of each coating being made separately, I was enabled to divide the components of the husks as follows:

| Pericarp (outer bran). | | | Endopleura and tegument (inner bran). | | | |
|--------------------------------------|-------|---------|---------------------------------------|-------|---------|--|
| | | Grains. | | | Grains. | |
| Woody or non-nitrogenous matter..... | 27.94 | 31 | Cellulose or woody fiber..... | 36.73 | 61.31 | |
| Nitrogenous matter.... | 2.41 | | Nitrogenous matter... | 15.32 | | |
| Mineral matter..... | 0.65 | | Fatty matter..... | 5.60 | | |
| Testa (outer bran). | | | Mineral matter..... | 3.66 | | |
| Non-nitrogenous matter..... | 5.98 | 7.69 | | | | |
| Nitrogenous matter.... | 1.25 | | | | | |
| Mineral matter..... | 0.46 | | | | | |

From this analysis it appears that the value of the pericarp and testa, the outer bran, as food is insignificant and not worth mentioning. The inner bran demands attention as containing food. It has nitrogen equal to 2 per cent. of the total weight of the wheat. But papers read before the Academy of Sciences from 1853 to 1860 do not favor the use of the husk as food, owing to the presence in the cells of the inner coating of the singular ferment called cerealine. This ferment during the process of bread-making acts on the gluten and starch, rendering the whole mass dark, sour and indigestible. By ingenious artificial means M. Mege-Mouries thought he had succeeded in neutralizing the vicious effect of the cerealine in the husk and in preserving for the use of man the important quantity of nitrogen which it contains, but careful experiments have led me to quite a different conclusion as to the indigestibility of this nitrogen. In order to demonstrate this important fact, that the husk is not assimilated, laying aside the insufficient experiments of Poggiale and M. Rathay, I found it necessary to resort to a direct quantitative experiment upon the digestive organs of the human system. This experiment I made last year, taking myself as the subject.

I was in perfect health and confined myself during the time to the use of food, either liquid or in a finely powdered condition, yet substantial. I used all possible precautions so that success should be perfect. I took 5.69 grains of husk, previously washed in water to insure its purity, and ate it. During the five days following the matters excreted were carefully washed and dried, and I found of husk, entire and unaltered, not less than 5.19 grains. The proportion of husk that was digested did not exceed .087 per cent. Besides, if the mineral matter which was washed away in preparing it is taken into account, the total quantity of the husk assimilated is reduced to $\frac{1}{125}$ of the weight of the berry. This is indeed a very modest gain of nutriment and dearly bought, when we consider that it is at the expense of making the bread dark, unpalatable and hard to digest, and we feel warranted in declaring that the husk ought to be rejected. The germ represents on an average only 1.43 per cent. of the whole berry, and its introduction into flour would not in any case be as important as that of the husk. The richness of the germ in nitrogenous and fatty matters, and the fact recognized by M. Lucas that the flavoring essence resides in it, would make it a very valuable product were it not for two fatal objections: First, the germ contains this noxious cerealine, the discoloring agent in bread; second, the oil in the germ has the bad habit of turning rancid rapidly. The germ, like the husk, ought to be rejected from the flour. As to the floury portion of the berry, we know that it is all digestible and all of it ought to be used. To summarize: The introduction of the husk and the germ into flour is of only insignificant utility and is accompanied with very harmful results. These products should therefore be carefully eliminated from the farinaceous portion of the wheat.

MILLING PATENTS.

Among the patents granted March 19, 1889, are the following:

Jas. Locher, Decatur, Ill., No. 399,678, an automatic grain-scale.

Robert P. Scott, Baltimore, Md., No. 399,702, a pea-huller.

Talbot Watson, Baltimore, Md., No. 399,718, a dust-collector.

Herman Baker, Somerville, Mass., No. 399,727, a method of obtaining gluten and starch from cereals.

Frederick Sanderson, Prospect Park, Ill., No. 399,785, a flour-bin.

Henry Bryan, Modesto, Cal., No. 399,827, a grain-cleaner.

Geo. H. Fountain, Plainfield, N. J., No. 399,862, a sifter.

Wm. E. Gorton, Moline, Ill., No. 399,874, a bolting-reel.

Anton Gessl, Buffalo, N. Y., No. 399,984, a dust-collector, assigned to Faustin Prinz, Milwaukee, Wis.

Among those granted March 26, 1889, are the following:

James Curtis, Moscow Mills, Mo., No. 400,061, a grain-crushing mill.

Wm. McConachie, Belleville, Dak., No. 400,100, an automatic grain-measuring machine.

Eugene Bretney, Indianapolis, Ind., No. 400,391, a dust-collector, assigned to the Bretney Dust Collector Co., same place.

Wm. J. Purdy, Carberry, Manitoba, Canada, No. 400,413, a roller-mill feed-hopper.

AN ENGLISH "PATENT BREAD."

A correspondent makes inquiry about a "patent bread" brought out in England several years ago. Following is "an improvement in bread," which was patented in England in 1884, a description of which may serve the purpose of our correspondent. The inventor describes his improvement as follows: "The invention is designed to provide a bread of more nutritious, digestive and keeping qualities than bread in ordinary use. In carrying out the invention a quantity of linseed, either in seed or meal, is taken and placed in a suitable vessel, and then cold or tepid water is added to the same in desired proportions; for instance, say one ounce of seed to a pint of water. It is then left several hours, and the water is decanted and strained, when it will be found to

contain a large amount of mucilage. This infusion is then added to flour and yeast, and the whole is well kneaded to or incorporated into dough and baked in the ordinary way. Bread thus made possesses very nutritious properties and is more easily digested than ordinary bread. The bread keeps soft far longer and is not so liable to ferment. The linseed mucilage tends by its use to neutralize acidity of the stomach. After drawing off the water from the soaked seed or meal fresh water may be added, allowed to stand and then decanted as before, and this may be repeated until the seeds are exhausted of mucilage; but in this case, a small quantity of carbonate of magnesia, soda or potash should be added to the water to neutralize any acid that may form. Biscuits, cakes and the like may be made in the same way. Instead of using yeast, the solution may be used with carbonic acid to produce aerated bread."

CANADIAN MILLERS NEED PROTECTION.

Referring to the petition of the Canadian millers asking for higher duties on imported flour, the Montreal "Gazette" says: The following is a statement of the quantity of wheat and flour imported for consumption in the Dominion during the last five years:

| | Wheat, bush. | Flour, bbls. |
|--------------|--------------|--------------|
| 1883-84..... | 298,606 | 529,376 |
| 1884-85..... | 373,099 | 538,028 |
| 1885-86..... | 66,061 | 199,375 |
| 1886-87..... | 22,534 | 168,124 |
| 1887-88..... | 12,042 | 60,545 |
| Totals..... | 772,342 | 1,495,448 |

Reducing the flour into the equivalent of grain the import of the five years amounts to 6,729,500 bushels, or nearly nine times the import in the shape of wheat. The duty collected on both flour and wheat aggregated \$863,569 for the period, or an average of 11½ cents per bushel upon the whole importation of wheat and flour. It is certainly a curious anomaly that the duty on wheat, the millers' raw material, should be 15 cents per bushel, while upon flour, the manufactured product, it is only 50 cents per barrel. Inasmuch as 4½ bushels of wheat are required to produce a barrel of flour, it will be at once seen that the tariff actually discriminates against the home manufacturer, the Canadian miller. Little wonder that the import of wheat from the United States has dwindled to a miserable 20,000 bushels annually, for no sane man will bring in the cereal in the shape of grain and pay thereon 67½ cents duty when he can import the flour at a customs tax of only 50 cents. Nor has the Canadian miller alone reason to complain of the strange discrimination in the tariff against his business; the farmer has also a grievance, since he was led to expect a protection of 15 cents a bushel against American wheat and has been given a protection of only 11½ cents. The millers this year have once again pressed upon Parliament and the government the need and the common justice of a re-adjustment of these duties, either by increasing the specific duty on flour or by converting it into an ad valorem rate of 20 per cent. The millers point out that, whenever it becomes necessary to import wheat or flour from the United States, flour is always brought in because of the lower duty it bears, to the disadvantage and loss of millers, produce dealers, railways and forwarders.

SPRING AND WINTER WHEAT FLOURS.

Commenting on the differences in various flours, our sprightly cotemporary, "Table Talk," says in a recent number: There has been but little decline from the highest figures which spring-wheat flour reached during the speculative fever several months ago, but winter wheat is lower. At one time spring-wheat flour was valued at several dollars a barrel higher than winter-wheat flour, but, as the former became abundant, the price gradually settled until it reached about the same level as the latter. In fact there have been times when the finest winter-wheat flour was even higher than the spring-wheat; but to-day the latter is about \$1 a barrel higher than the former (best winter), and the prospects are that this difference will continue for some time. I don't

believe that many consumers understand the difference between a spring-wheat and winter-wheat flour, but it is desirable that they should. The former contains a much larger proportion of gluten and is consequently more nutritious and will go farther. The latter contains a larger proportion of starch and will not retain the moisture which is so noticeable in the bread made from the former. Both flours have their use. The former makes the most nutritious and most satisfactory bread, while the latter is desirable for pastry purposes. The former also goes much farther than the latter, a claim which can be practically tested by any housewife by noticing the large amount of water which spring-wheat flour takes up. The winter-wheat flour, however, will make a whiter loaf of bread, and perhaps of finer texture, but, as stated before, it lacks the nutritive qualities of the former. The difference in these two kinds of flour is very noticeable to the housewife who is accustomed to using one kind and by mistake receives the other. In consequence of such mistake the new flour is condemned, when the fault frequently lies in the lack of knowledge as to the proper method of handling it. It would be well for practical housewives to have some of both kinds of flour, for in that way they can have the best bread and the best pastry. Make a note of it: For the best and most nutritious bread use spring-wheat flour; for the finest pastry use winter-wheat flour.

THE exports of wheat from India during the past week were 160,000 bushels, of which 80,000 bushels went to the United Kingdom and 80,000 to the Continent. The shipments for the corresponding week in 1888 were 220,000 bushels. The total shipments since April 1 were 33,680,000 bushels, of which 19,600,000 bushels were to the United Kingdom and 14,080,000 bushels to the Continent. The total shipments for the corresponding time in 1887-8 were 25,372,000 bushels, of which 12,966,000 bushels were to the United Kingdom and 12,376,000 bushels to the Continent.

QUERY: Will the department of resolutions of the convention of the Millers' National Association in Milwaukee, in June, 1889, be dominated and "queered," as at the Buffalo convention, in June, 1888, by a superliberal injection of the nauseating dyspepticizing micromental hebetudinous rhombocephalic Minneapolis editorial auto-inflatorial egocentricity?

Wm. H. Kane and others, Chicago, Ill., incorporated the Excelsior Milling Co., capital stock \$30,000.

SPECIAL NOTICES.

LIBERAL OFFER.

With a view of increasing our subscription list, we will send a copy of R. J. Abernathy's new book, "The True Short System" (Price \$2.00) and "The Milling World" for one year at the very low price of Two Dollars. Renewal will be treated same way. This offer will only continue for a limited time. Now is your chance. Send in your subscriptions at once.

Address,

THE MILLING WORLD, BUFFALO, N. Y.

BOLTING CLOTH.

Do not order your cloth until you have conferred with us. It will pay you, both in point of quality and price. We are prepared with special facilities for this work. Write us before you order.

CASE MANUFACTURING CO.,

Columbus, Ohio.

Office and Factory, 5th Street, north of Naughten.

TOLEDO MILL PICKS AND STONE TOOL MFG. CO.

Manufacturer

and Dresser of

MILL PICKS.

Made of the best double-refined English cast steel. All work guaranteed. For terms and warranty, address, GEO. W. HEARTLEY, No. 297 St. Clair Street, Toledo, Ohio. Send for Circular.

N. B.—All Mill Picks ground and ready for use (both old and new) before leaving the shop. No time and money lost grinding rough and newly dressed Picks. All come to hand ready for use.

ALSO MANUFACTURERS OF

Shafting, Pulleys, Hangers, Coupling, Machine and Jobbing, Etc., Etc.



STEEL INGOTS CAST HOLLOW.—In Sweden hollow steel ingots are being made by casting steel in molds hung on trunnions, allowing the sides to chill to the required thickness and pouring out the steel still liquid in the center. These hollow ingots go to England, where they are drawn out cold to tubing.

GENERAL NOTES.

GREAT BRITAIN joins the Canadian Government in a subsidy of \$1,250,000 per annum for fortnightly mail service to China and Japan from Victoria, B. C. Australia and New Zealand will subsidize the service to extend it to Auckland and Australia.

THE silver circulation of the United States was just about doubled during the last four years. It was \$152,000,000 four years ago, and is now \$304,000,000. The present outstanding circulation includes \$57,500,000 in standard dollars and \$246,600,000 in silver certificates. The total money circulation at the beginning of this month was \$1,404,200,000, being an expansion of \$33,000,000 during the preceding twelve months.

COTEMPORARY COMMENT.

Along about May one side or the other is bound to exclaim with jubilation, "I told you so!" Which side of the wheat question it will be deponent saith not.—*Chicago "American Elevator & Grain Trade."*

We do not hear so much nowadays about new milling-machines being "tried" or "now at work in" and "proving entirely satisfactory to" mills of Minneapolis. It is true that new machines do not appear quite so frequently as in days gone by, but it is also true that there are now just as good if not so large mills in other parts of the country as there are in Minneapolis, testimonials from which are worth just as much as those coming from Minneapolis millers, more so, in fact, for it is a notorious truth that the demand for double-leaded great primer verdicts, always favorable, on the merits of different milling-machines from Minneapolis millers became so strong that improved machinery cost the mill-owners little or nothing. It's a great thing to be a Minneapolis miller, but it's a greater thing for the inventors of new machines in these days to have testimonials as to their efficiency from well-reputed millers in other places.—*Kansas City "Modern Miller."*

After all, what of the beneficent results that were sure to follow the Milwaukee conference? Does any body discern plethoric bank deposits or enormous increases in orders for

flour at paying figures on account thereof? But look ye at what has followed the conference in Indianapolis, accumulated strength, splendid organization, control of the brokerage business, of credits, of prices—harmony and fidelity in all the borders of the Central Association!—*Indianapolis "Millstone."*

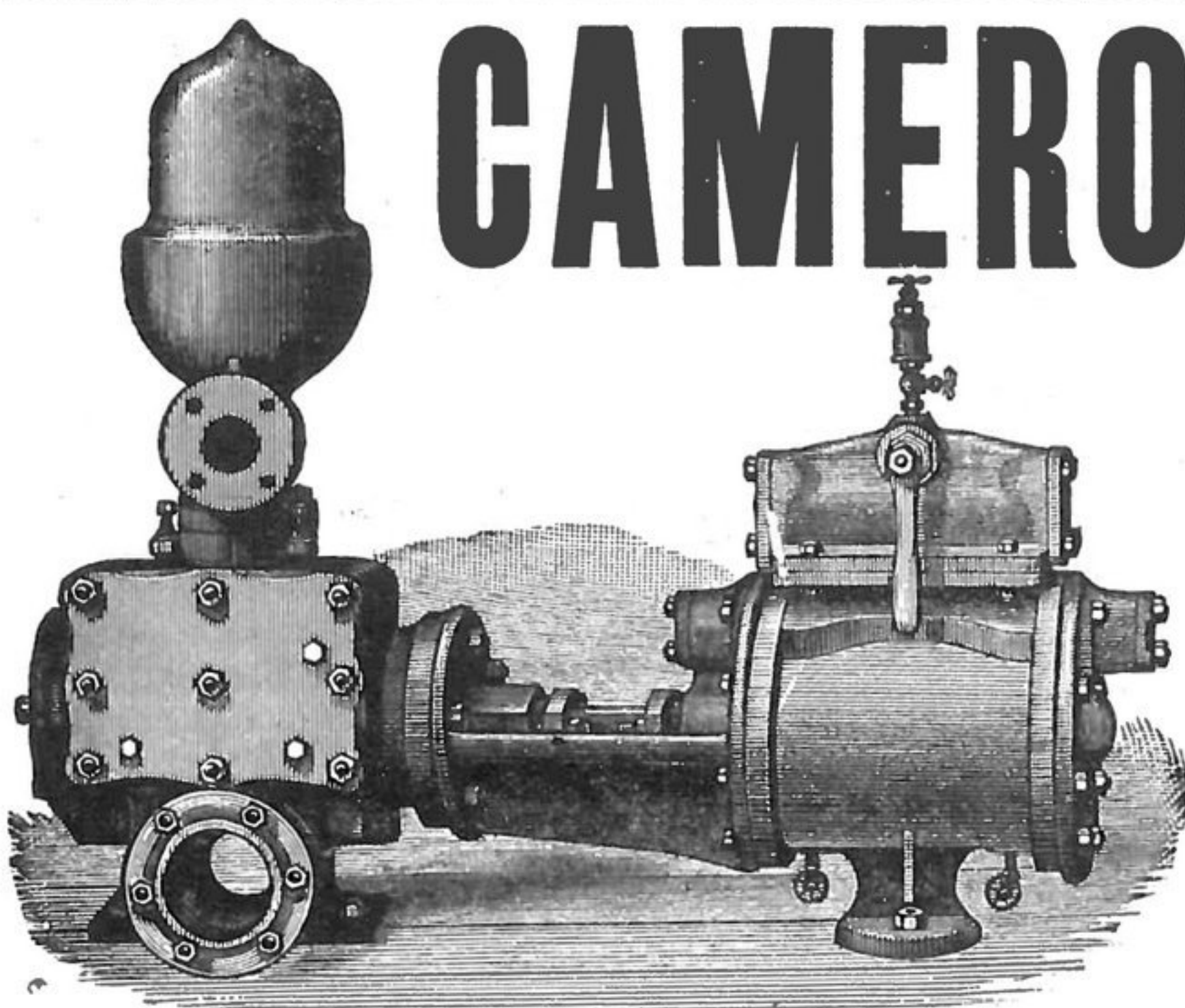
On every fresh break a new lot of broken-hearted longs are made to throw up the sponge and dump their load. Naturally the bear crowd are decidedly happy over the course of the market, and as usual in such cases they grow bolder and more aggressive the lower prices go. It has only been within the past week or so that they have plucked up sufficient courage to hammer the market openly, but recently they have grown so elated and confident that they have not hesitated to sell right and left and jump on the market with both feet. Formerly they would give it a sly kick and then run to cover, now they jump up on top of the poor bulls and crow loudly and bravely. Of course we all know the ultimate outcome of this sort of thing. Some fine morning the bears will awake to the fact that they are short up to their necks, and as customary on such occasions they will all come in to cover at once, and then the big bulls will make it hot for them.—*New York "Produce Exchange Reporter."*

The Minneapolis 28-story building is still "the baseless fabric of a dream." The price of flour at that point is still distinctly visible from the ground floor of an ordinary three or four-story building without the aid of a tower of observation.—*Chicago "Daily Business."*

The crop-killers of the most fruitful kind are almost without resources, and their occupation is gone. Of course there are a few places in almost all large areas that the plant has been injured, but that is so always. Some were reported in Ohio, in Indiana, more in Michigan, some in Illinois, but little in Pennsylvania or in New York. South of the Ohio river there is little complaint of any kind.—*Minneapolis "Market Record."*

A NEW WAY TO RAISE OATS GRADES.

According to a recent report from Chicago, quite a stir has been created in Board of Trade circles by some interviews on the subject of clipped oats. The report says there is a corner in No. 2 oats in Milwaukee, and that there is a machine which will clip the end from oats at the rate of 300 bushels per minute. The result of this process is to make the oats heavier by the removal of the clipped chaff, thus raising the grade. By this process No. 2 oats are made No. 1 and No. 3 raised to No. 2. The report declares that the machines are now being run on No. 3 for the purpose of increasing the stock of No. 2 in order to break the Milwaukee corner. The elevator men interviewed, while each denies the impeachment as to himself, unite in declaring that the practice has been a common one all over the country for the last three years; that it is perfectly legitimate; that there is no law to prevent it; that it actually improves the grain, and that there is a large demand, especially in the East, for clipped oats as a superior quality of food for horses.



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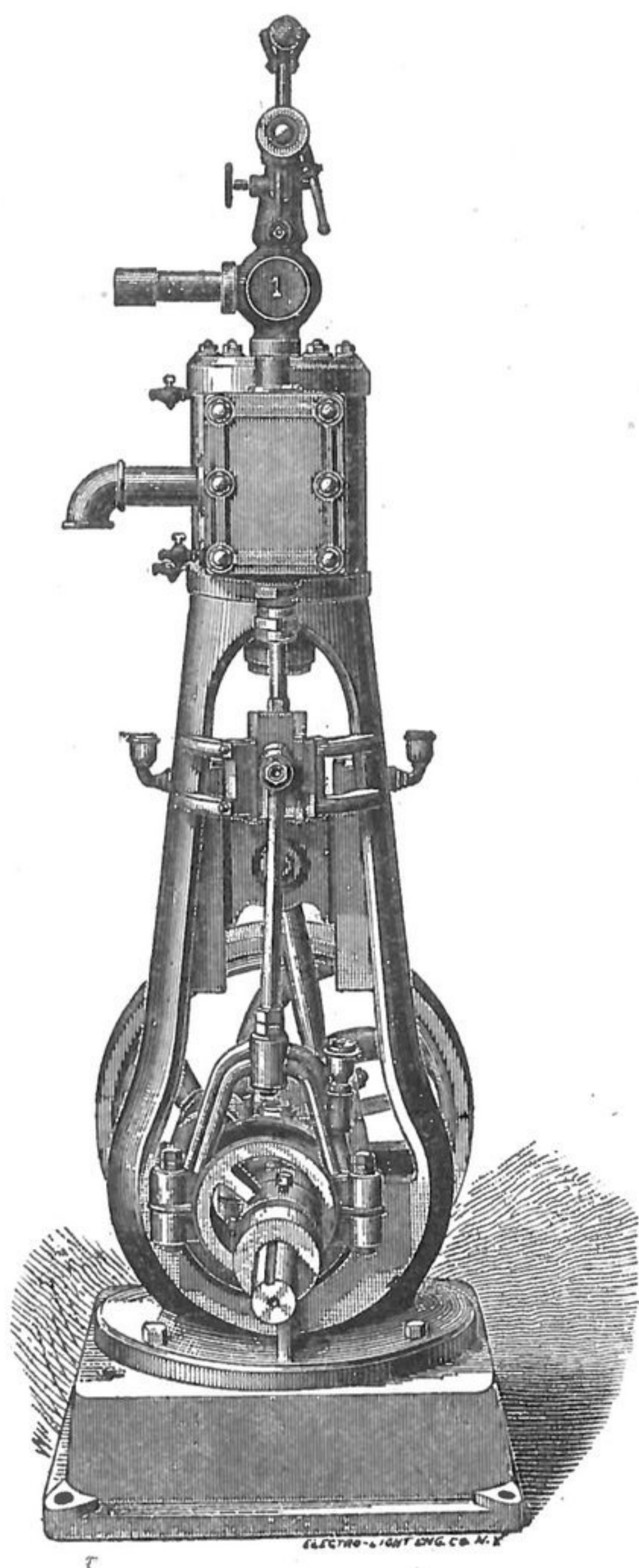
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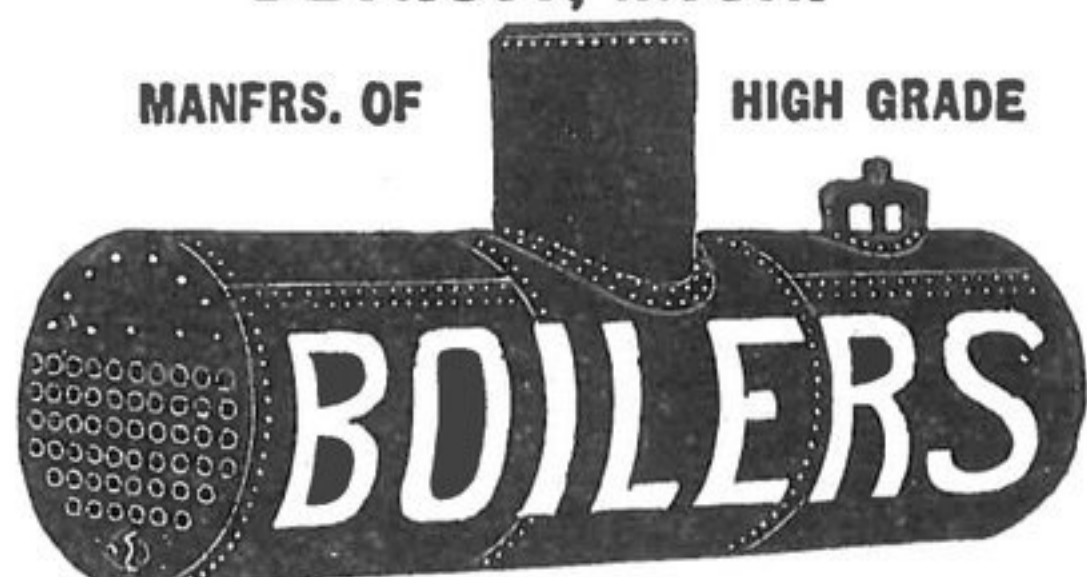
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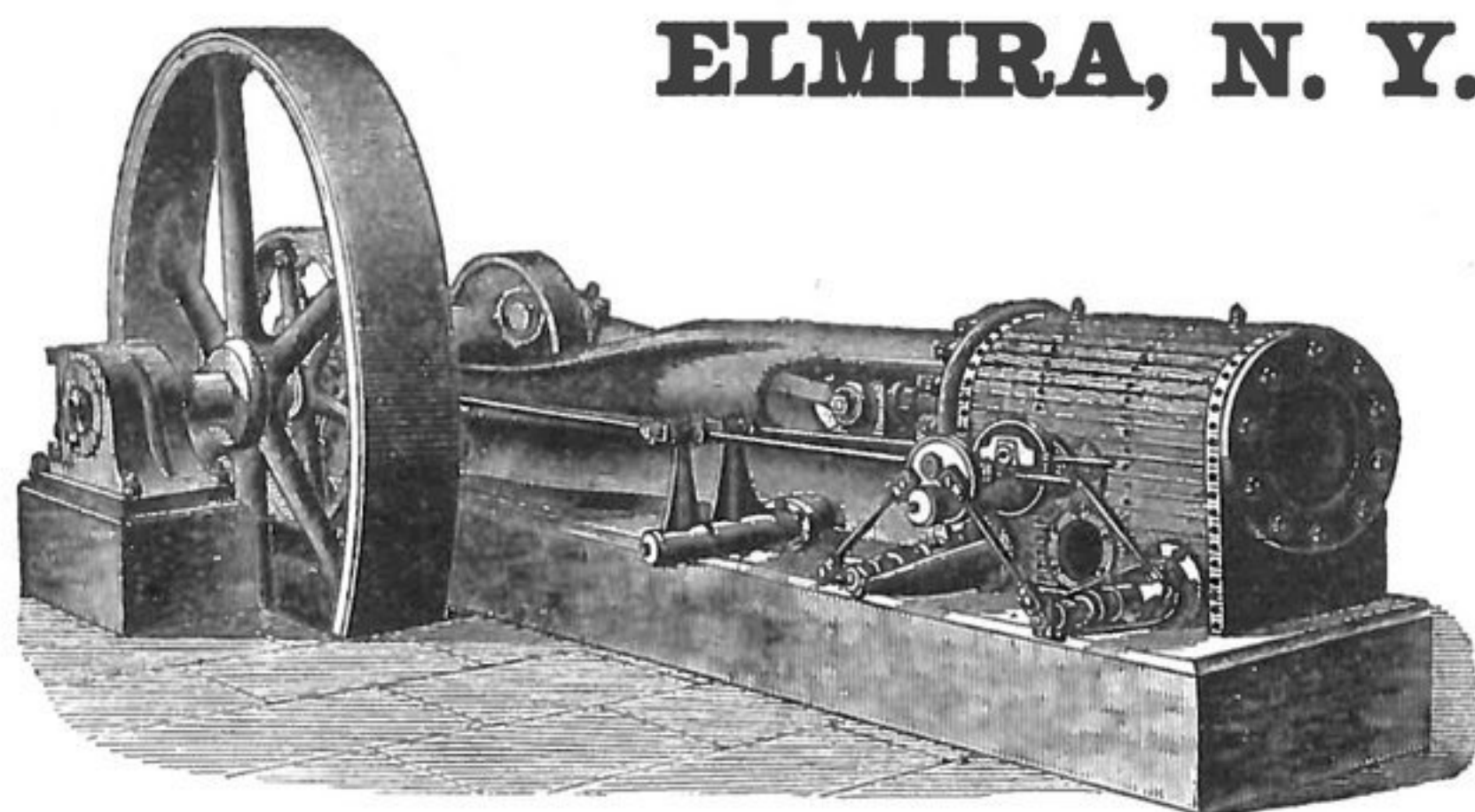
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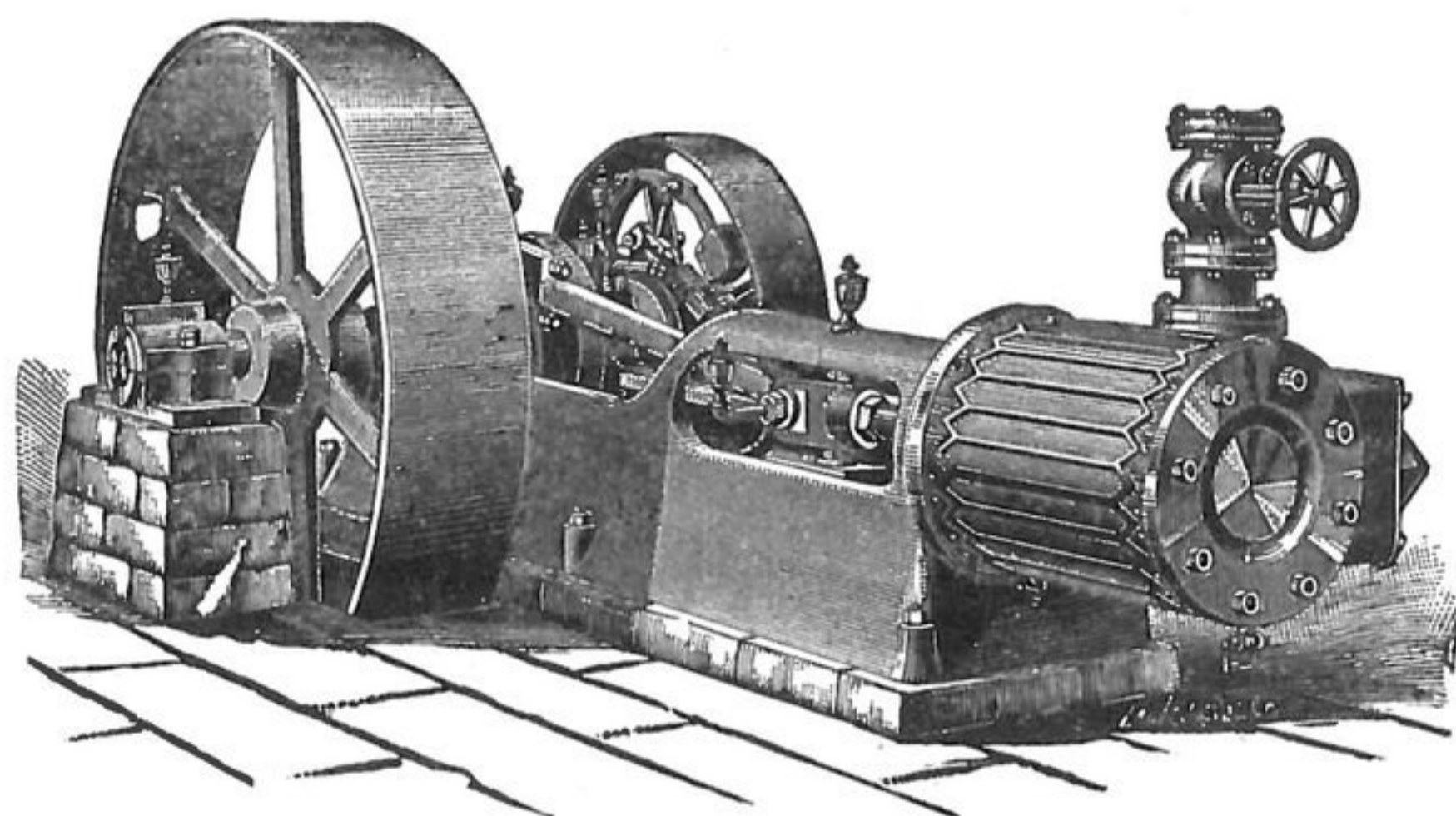
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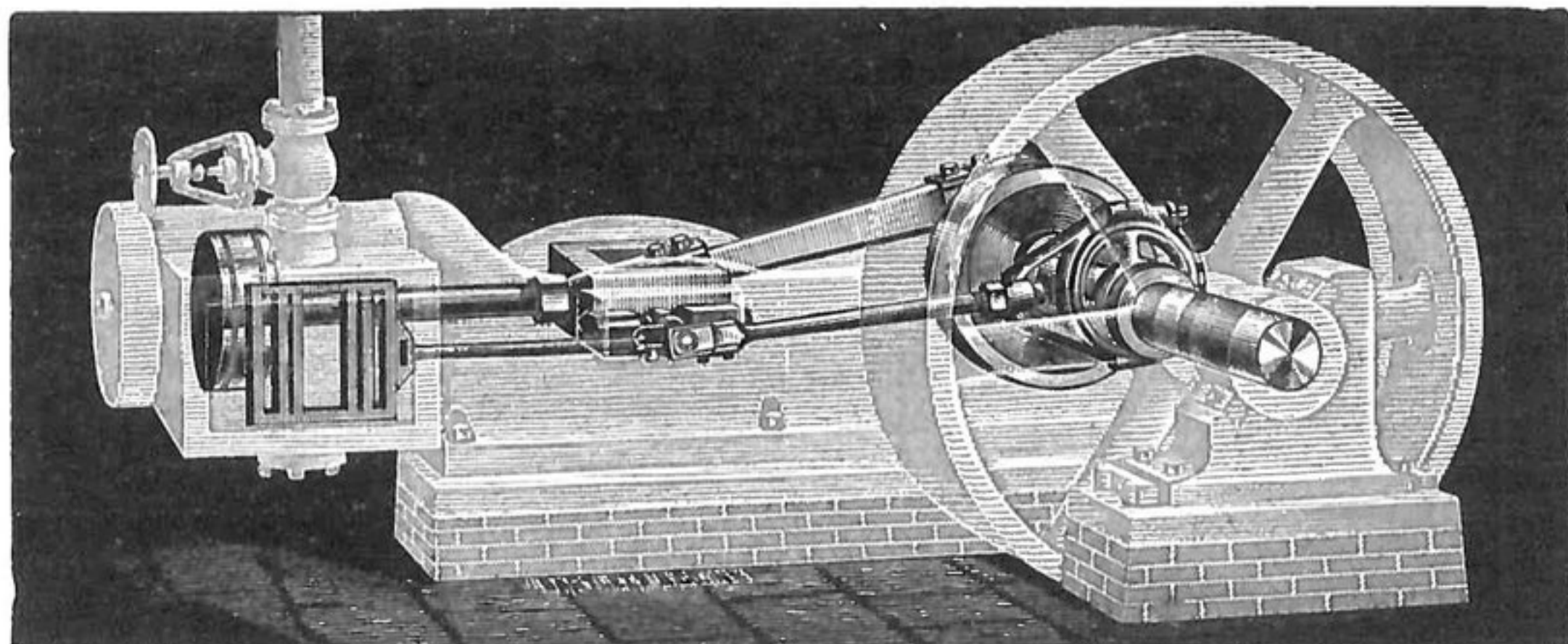
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Wm. Reed, Mt. Ida, Ark., will build a flour-mill.
 Geo. L. Hitchcock, miller, Farwell, Mich., is dead.
 Elba, N. Y., men are about to build a flouring-mill.
 Hudson & Dobbins, Paris, Tenn., have put in rolls.
 F. Hall, Canandaigua, N. Y., will build a feed-mill.
 Grimes & Morton, Moscow, O., project a roller mill.
 H. Spencer, Fort Spring, Ky., will build a flour-mill.
 J. Harding, Spring Hill, Tenn., will rebuild his flour-mill.
 Jas. Parsons, Son & Co., Batavia, N. Y., will build a mill.
 Brown Bros., Nicholasville, Ky., are building an elevator.
 A. Shuman, Week's Mills, Me., bought the Clark grist-mill.
 The Kemp's Creek, Ala., Lumber Co. want grist-mill machinery.
 Wm. Bechtel's flour-mill, Blainsport, Pa., lost \$3,000 by fire; insured.
 W. M. Bergman, Oxford, Md., wants machinery for a 30-barrel flour-mill.
 J. B. Gould's grist-mill, Warren, Mass., burned; loss \$7,000; insurance \$3,500.
 J. F. Morris & Co.'s steam grist-mill, Orange C. H., Va., burned with other property.
 C. P. Greever, Graham, Va., has points on a proposed \$20,000 stock flour-mill company.
 J. H. Boone, Felton, Del., is putting in rolls furnished by the Case Mfg. Co., of Columbus, O.
 W. W. Collins, Milwaukee, Wis., proposes to start a 100-barrel corn-mill at Denison, Texas.
 C. D. Perfect & Sons, Marysville, O., changed their mill to 3-break system with 140-barrel capacity.
 The Case Mfg. Co., of Columbus, O., have an order from F. L. Caps, Peoria, Ill., for one centrifugal reel.
 Kerfoot Bros., Des Moines, Iowa, have placed an order with the Case Mfg. Co., Columbus, O., for four pairs of rolls.
 Esmueller & Barry, St. Louis, Mo., have placed an order with the Case Mfg. Co., of Columbus, O., for six pairs of rolls.
 Wickham, Frenger & Humphries, Covington, Va., have bought and will operate and improve the Wyatt grist-mill plant.
 W. J. Cronk, Harbor Spring, Mich., has bought the Little Traverse mill and will remodel to rolls with 75-barrel capacity.
 The Case Mfg. Co., of Columbus, O., have an order from Almendinger & Schneider, Ann Arbor, Mich., for two pairs of rolls.
 Jesse Clements, Waynesville, O., is putting in a purifier and other machinery furnished by the Case Mfg. Co., of Columbus, O.
 The Case Mfg. Co., of Columbus, O., have an order from F. L. Herring, of Finksburg, Md., for three pairs of rolls and other supplies.
 C. B. Simonton and others, Covington, Tenn., formed the Covington Flouring Mill & Elevator Co., to build a large mill and elevator.
 Hastings, Lown & Cheney, Sparta, Mich., are putting in two additional pairs of rolls furnished by the Case Mfg. Co., of Columbus, O.
 The Case Mfg. Co., of Columbus, O., have an order from Crist, Parcel & Barker, of Pulaski, Ind., for the necessary rolls and other machinery for a Case short-system mill.
 The Case Mfg. Co., of Columbus, O., have an order from B. F. Starr & Co., of Baltimore, Md., for rolls to be placed in the mill of A. W. Ellis & Co., Winston, N. C.
 The Case Mfg. Co., of Columbus, O., have the contract of H. O. Wylie, New Concord, O., for rolls, flour-dressers and other machinery for a full roller mill on the Case system.
 The Case Mfg. Co., of Columbus, O., have the order of J. R. Cunningham, Coffeysburgh, Mo., for all the necessary rolls and other machinery for a full roller mill on the Case system.
 The Case Mfg. Co., of Columbus, O., have just furnished the Bridge-water Milling Co., of Fredericksburg, Va., with the necessary rolls, purifier and aspirator for a Case short-system corn-meal mill.
 The Case Mfg. Co., Columbus, O., have the contract of Arnold & Johnson, of High View, Va., for the necessary rolls, purifiers, flour-dressers and other machinery for a roller mill on the Case short system.
 W. M. Birely, of Vanceburgh, Ky., has placed his order with the Case Mfg. Co., of Columbus, O., for all the necessary rolls, scalpers, purifiers, flour-dressers and other machinery for a full roller mill on the Case system.
 The Case Mfg. Co., of Columbus, O., have been awarded the contract of David Litten, Brookville, O., for all the necessary rolls, purifiers, flour-dressers and other machinery for a full roller mill on the Case short system.
 The Case Mfg. Co., of Columbus, O., have the contract of Frazier & Bowser, Saxonburgh, Pa., for rolls, flour-dressers, scalpers and the other necessary machinery and supplies for a full roller mill on the Case short system.
 The Case Mfg. Co., of Columbus, O., have been awarded the contract of Richmond & Smith, Canandaigua, N. Y., for all the rolls, flour-dressers, purifiers, scalpers and other machinery for a full roller mill of 100 barrels capacity.
 Baney, Sheal & Co., of Steubenville, O., are remodeling their mill to the Case system and have placed their order with the Case Mfg. Co., of

Columbus, O., for all the necessary flour-dressers and other machinery necessary for making the change.

The Case Mfg. Co., of Columbus, O., have been awarded the contract of W. D. & F. E. Wilson, of Osgood, Ind., for all the rolls, flour-dressers, scalpers, purifiers and all other necessary machinery for a full roller mill on the Case system.

On March 26 the total stocks of grain in regular elevators and on vessels in Chicago were: Wheat 4,607,000 bushels, of which 3,639,000 grades contract; corn 5,255,000, of which 3,372,000 grades contract; oats 4,085,000, of which 2,385,000 grades contract.

PERSONAL MENTION.

Mr. C. P. Day, representing our esteemed Baltimore cotemporary, "The Manufacturers' Record," was among our recent visitors.

BOOKS AND PAMPHLETS.

The April number of *Scribner's Magazine* is particularly rich. It contains "Climbing Mt. St. Elias," by Wm. Williams; "Hope's Song," by Elsie Kendall; "Henrik Ibsen," by Geo. R. Carpenter; "The Prevention of Railroad Strikes," by Charles Francis Adams; "The Building of an Ocean Greyhound," by Wm. H. Rideing; "The Anatomy of the Contortionist," by Dr. Thomas Dwight, and interesting miscellanies by well-known authors. Every department is full of valuable matter. Future numbers will show a marked advance. The May number will contain an article of special attraction in the account of "The Land of the Winanische," by Doctor Leroy M. Yale and Mr. J. G. Aylwin Creighton, an angler's paper and the first of a group which will deal with different kinds of fishing. In the same number will be an article on "Photography," by Prof. John Trowbridge, of Harvard University, a paper on "Count Tolstoi Twenty Years Ago," by Eugene Schuyler, and an article on "The Freight Car Service," by Theodore Voorhees. This typical American periodical should be on the table of every intelligent citizen. The price is only \$3 a year. Address Charles Scribner's Sons, publishers, 743 Broadway, New York, N. Y.

The first of the *Good Housekeeping* prize papers on various food products is published in the issue of March 30. Its subject is fish and its author is Anna Sawyer. It is an admirable presentation of the points to be observed in selecting and cooking fish and other sea food, and is timely at this season. In the same number Frank H. Stauffer gives some useful suggestions about the uses of "Paste, Glue and Cement," and there is a pleasant story with a "moral" about "A Wife Who Kept Her House Well." The second of Isabella Laning Candee's papers on "Amateur Entertainments" details the plan of the "Vienna Bakery," the idea having originated in the refectory of that name which figured at the Centennial Exposition at Philadelphia. It should be a very successful and attractive feature for church festivals and the like. "Some Dainty English Dishes" is the title under which Frances B. James describes some of the "savories" which figure on English dinner and lunch tables. They are strongly-seasoned dishes, but our housewives will no doubt be anxious to give them a trial. The usual batch of "Every Day Desserts" for April is furnished by Ruth Hall, and Helena Rowe is up with the times in her "Family Fashions and Fancies." Other good matter fills out an excellent number.

DOCTORING IN THE DARK.

No sensible surgeon will attempt the performance of an operation involving human life in a room secluded from the proper amount of light. A practitioner will not attempt the diagnosis of a complicated disease unless he can see the sufferer and make an examination upon which to base his opinion relative to the treatment necessary to bring about restoration of health.

Notwithstanding the impropriety of such action there seems to be a great deal of doctoring done in the dark.

It needs no illustration to demonstrate that gross ignorance has caused many fatal mistakes in the treatment of diseases by those who profess to be learned in the art of healing.

In many diseases several organs are more or less implicated and what seems a primary ailment may be one quite remote. For instance, a severe headache may have its origin in a disturbed stomach. On the other hand, sickness at the stomach may be caused by a blow on the head. The seat of typhoid fever is in the upper part of the bowels, but most of its worst symptoms are often in the brain.

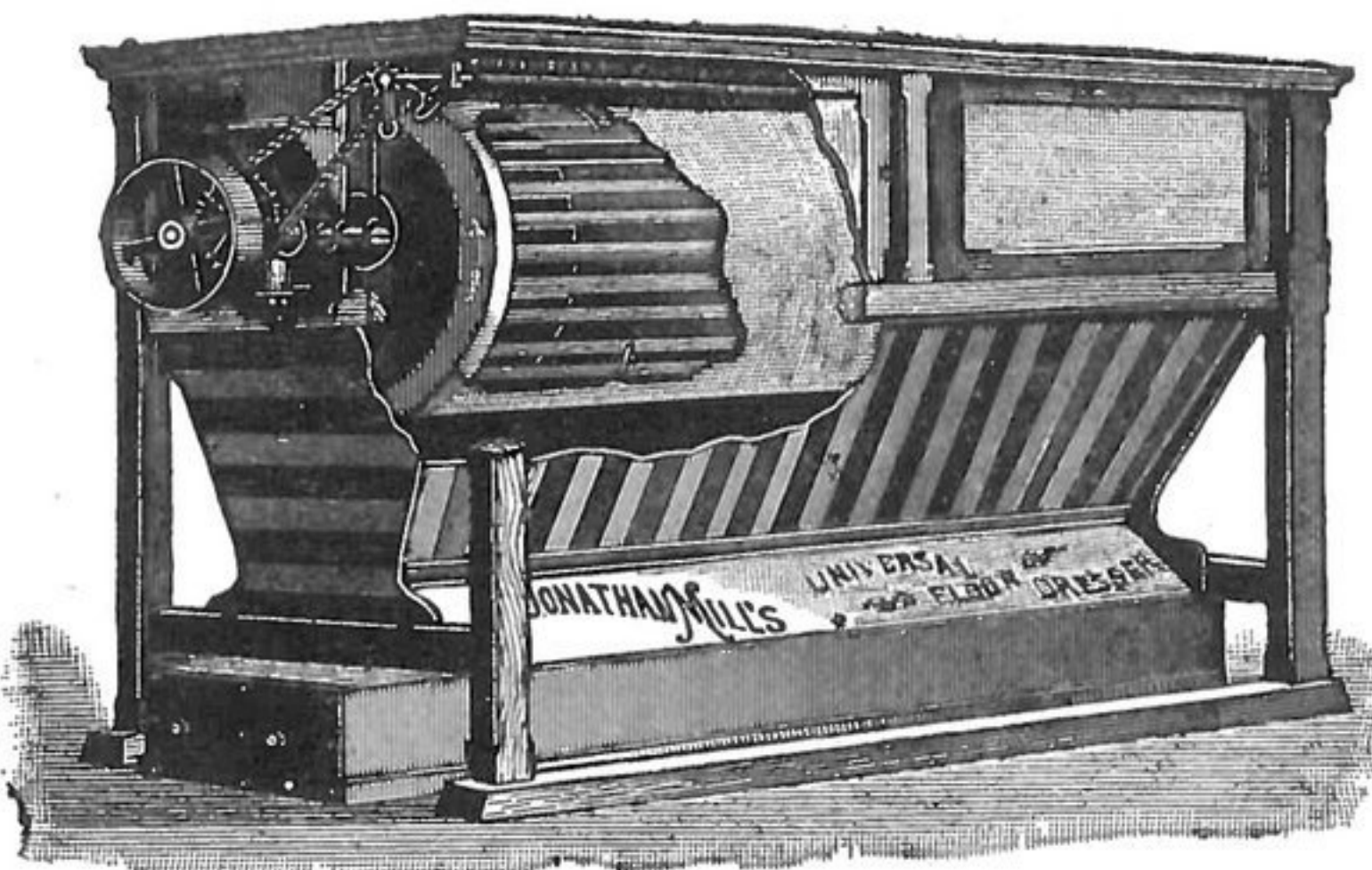
Symptoms of disease as well as diseases themselves are oftentimes followers or concomitants of some unsuspected organic disease and this is peculiarly true of lungs, liver, brain and heart diseases in general, for it is now known that they are the result of kidney disease, which shows its presence in some such indirect manner.

Several years ago a gentleman became convinced of the truth of this and through his efforts the world has been warned of kidney disease and as a result of continued efforts a specific known as Warner's Safe Cure was discovered, the general use of which has shown it to be of inestimable benefit in all cases where kidney treatment is desirable or necessary.

When consumption is threatened see to it that the condition of the kidneys is immediately inquired into and if they are found diseased, cure them by an immediate use of Warner's Safe Cure and the symptoms of lung decay will rapidly disappear.

There are too many instances already recorded of the terrible results produced by a lack of knowledge concerning the cause of disease, and human life is of too much importance to be foolishly sacrificed to bigotry or ignorance.

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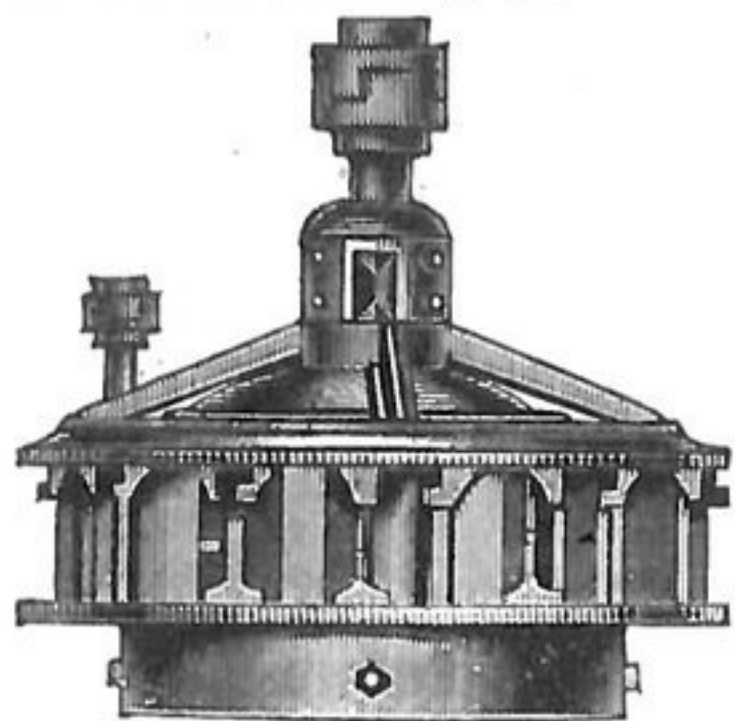
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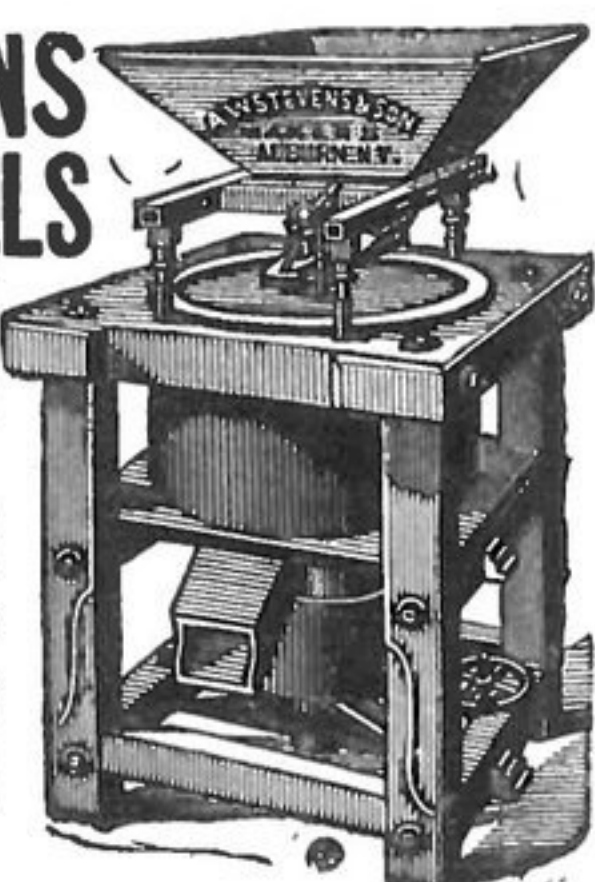
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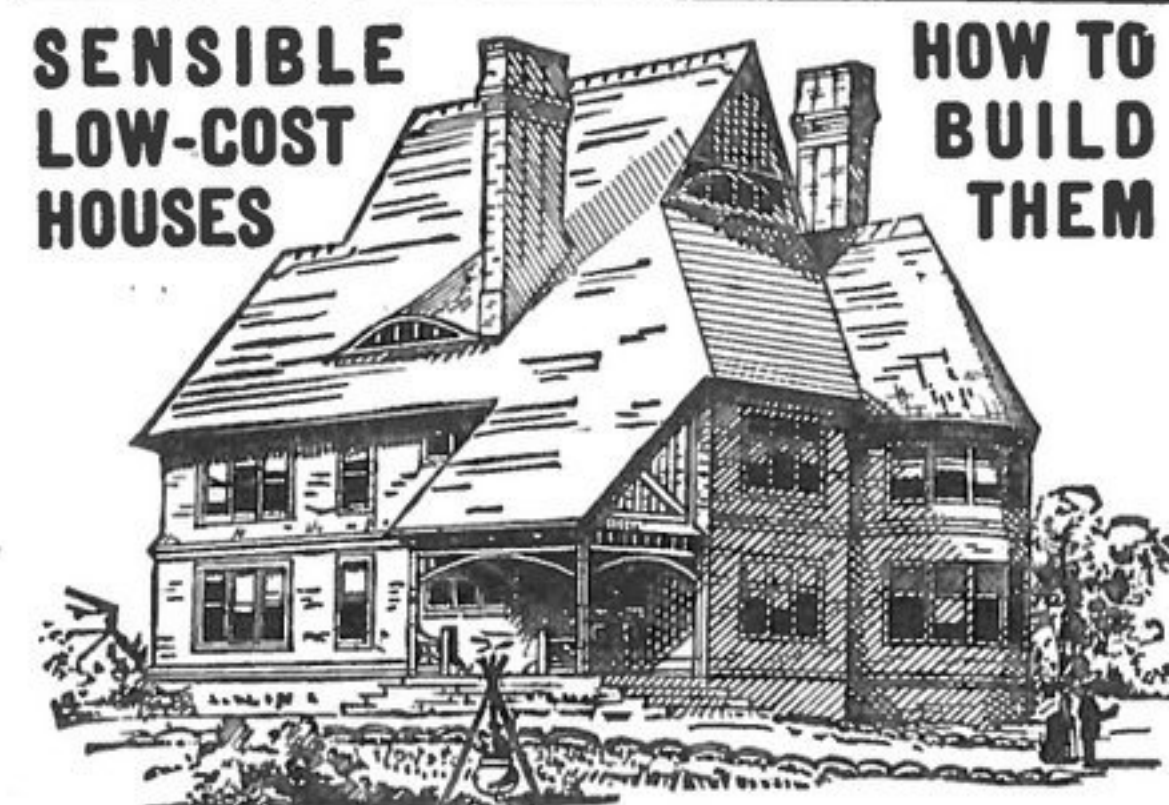
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EUROPEAN ECHOES.

CONTINENTAL mills were prosperous during 1888. The Pesth Miller and Baker Flour Mill Company paid 16-per-cent. dividends, the Isvan Milling Company, of Debrecsin, Hungary, 20 per cent., and the Stettin Roller Mill Company 30 per cent.

GERMANY'S net exports of flour in 1888 were 1,402,146 quintals, against 1,106,408 quintals in 1887. In the five months ended December 31, 1888, Austria-Hungary exported 1,066,853 quintals, against 658,122 quintals in the corresponding period of 1887.

ABOUT 1,000 persons in Switzerland are still employed in making bolting-cloth, though the industry is not prosperous. The demands upon the makers, in respect to strength and quality, are greater than in former years, while no proportionate increase of price can be obtained.

FRANCE had severe wintry weather up to March 10, when heavy rains fell. Winter wheat looked well. In Germany cold and frosty weather prevailed up to March 11. In Southern Russia on March 10 there were heavy snowfalls and severe frosts. The growing winter wheat was damaged by the sudden change.

ACCORDING to statistics published by Dr. Popper, of Prague, milling should not be considered an unhealthy occupation. The doctor, who bases his figures on observations extending over 46 years, gives the average duration of life in various trades and occupations as follows: Bakers 43.9 years; brewers 49.2 years; husbandmen and millers 51 years; and coachmen 51.5 years.

ADVICES from Sydney announce that the Australian wheat crop has fallen short of the estimated product for the season and that stocks are being firmly held, owing to the probability of the imposition of a protective tariff by the Colonial Government at Melbourne. The total yield amounts to 6,200,000 bushels from an area of 2,000,000 acres, more than one-fifth of which is not worth reaping. The total surplus for exporting will be less than 2,000,000 bushels, compared with 10,000,000 last season. The wheat shipments from the Pacific coast ports alone this season to the Australian colonies promise to excel those of any previous year.

SAYS the London "Mark Lane Express" of March 26; Despite the stormiest equinox in years the weather was propitious for tillage. Although the estimated supplies of breadstuffs for the last week were from 80,000 to 100,000 quarters below the wants of consumers, the tone of the trade for English wheat was not improved. Indiscreet and heavy threshings of wheat already wanting in condition during the rainy periods of February and the early part of March have inundated many local exchanges with grain which the millers find can not be used until it is mixed with drier and stronger foreign grain. Even then it is difficult to open foreign accounts, except at a lower mean price. The sales of English wheat during the last week were 54,419 quarters, at 30s 5d, against 50,825 quarters at 30s 6d during the corre-

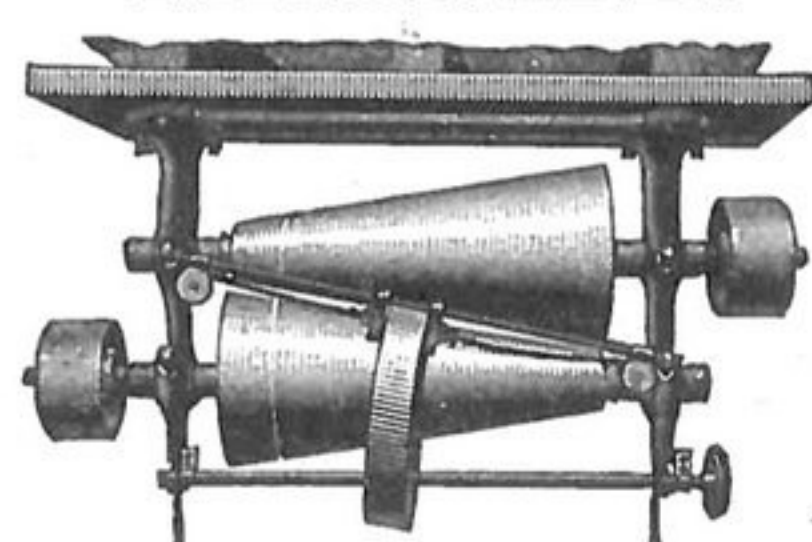
sponding week last year. Foreign wheat fluctuated, prices declining 6d and then advancing 6d for California. Good Russian wheat was steadier, but there were larger offerings of inferior quality allowed in order to clear up stock. Indian wheat was firmer. The new crop is not expected to equal that of 1888.

SAYS the London "Millers' Gazette:" The shipments of flour from America during January are officially given at 685,244 barrels, against 1,023,923 barrels in January last year. This makes the total for the seven months ended 31 January 5,565,394 barrels, against 7,266,589 barrels in the corresponding period last year. This falling off of 1,701,000 barrels is likely to be increased very materially before the end of the season, since the probability is that from now until September not more than one-third of the usual quantity will be exported from America. This is good news for the British miller, whose position just now is probably better than it has been for some years.

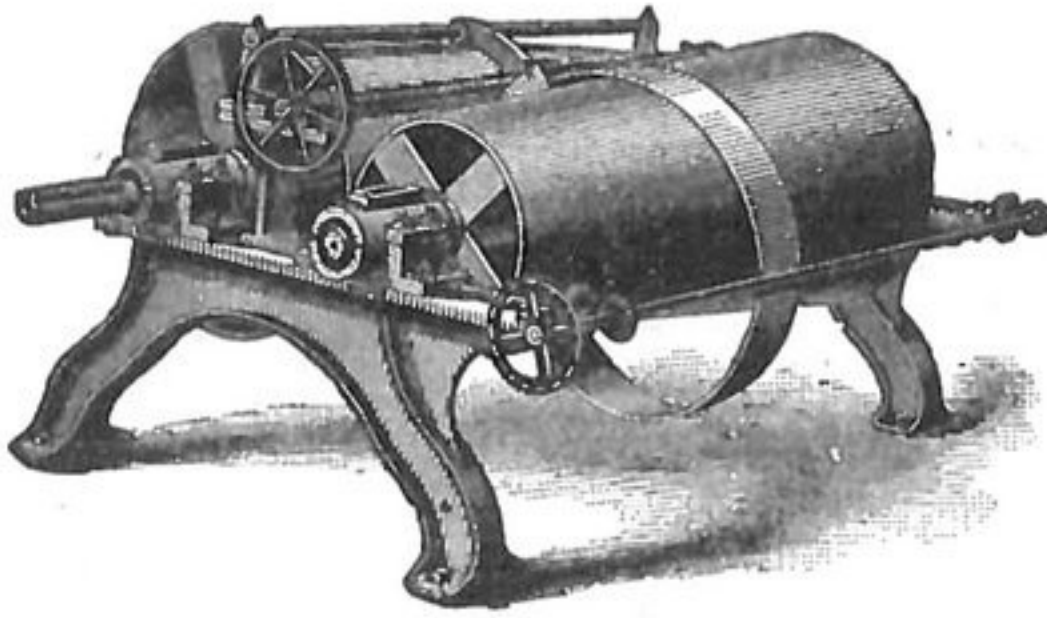
SAYS the London "Miller": It is very pleasant to learn that the Dakota Farmers' Alliance is by no means dead, but is still doing good service to the cause it champions. It is also well to know that the Scandinavian Elevator Company, which may be said to have been brought into being by the Alliance, is also alive and doing good service. The object of the Scandinavian Elevator Company is to bridge over the chasm separating the Northwestern producer of wheat from the European consumer, and this it proposes to effect by establishing a chain of elevators stretching across the American continent, so that the wheat may remain under its own control throughout its stay in America and thus be preserved from the manipulations of the elevator men. It will be remembered that last year an effort was made to realize this scheme, but did not succeed on account of the small support it met with in this country. As a matter of fact the time was unpropitious for such a scheme. An abundant Russian crop was promising a good supply of cheap and strong wheat, and that was not the occasion for bringing home to British millers the desirability of making some sacrifice to secure their share of the hard wheats of the Northwestern states of the Union. The thing seemed a luxury and mere superfluity; but this state of things will not last for ever. We are now having our good time, while the Minneapolis millers have apparently fallen upon evil days. But once again a good season will bring them plenty of strong, sound grain, while simultaneously short harvests may be vouchsafed to Europe. Then, unless the British millers have got some scheme in working order whereby they may get hold of a fair proportion of good Northwestern wheat, they will assuredly be troubled by a repetition on a larger or smaller scale of the floods of American flour which poured on Mark Lane in the January of 1887. Whether the plan originally advocated in these columns, of syndicates exclusively composed of British millers, or the alternative scheme offered by the Scandinavian Elevator Company, is the best, it would be premature to discuss, but the fact remains that our milling industry will always be at the mercy of such disastrous conjunctions as described above, until our millers by some means or other firmly plant their feet on the wheat belt of the Northwest.

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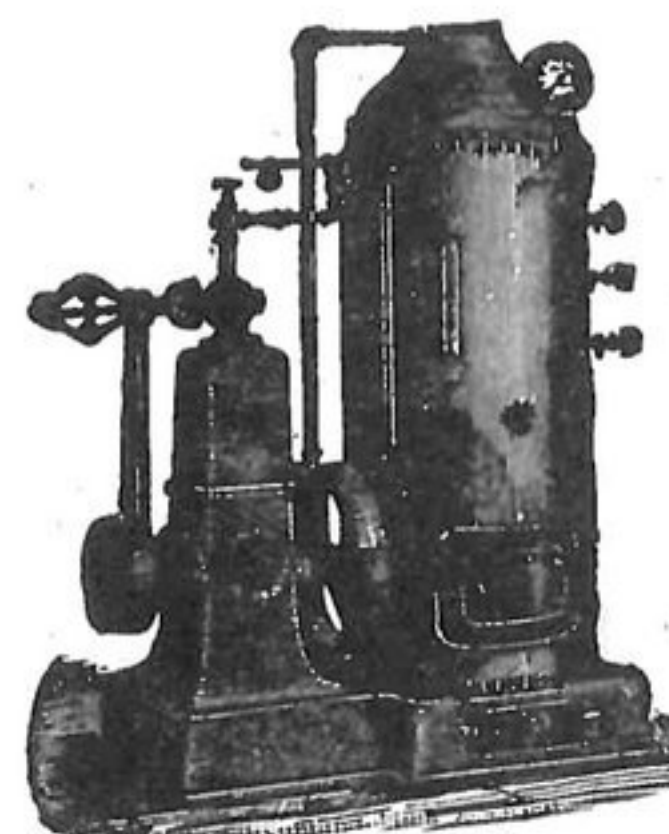


This cut represents a set of hanging cone pulleys. This pattern is intended for that class of machinery that stops and starts at the same speed, and at the same time be able to change the speed more or less while running. These cones are also fitted with a governor where a steady motion is required and the initial power is



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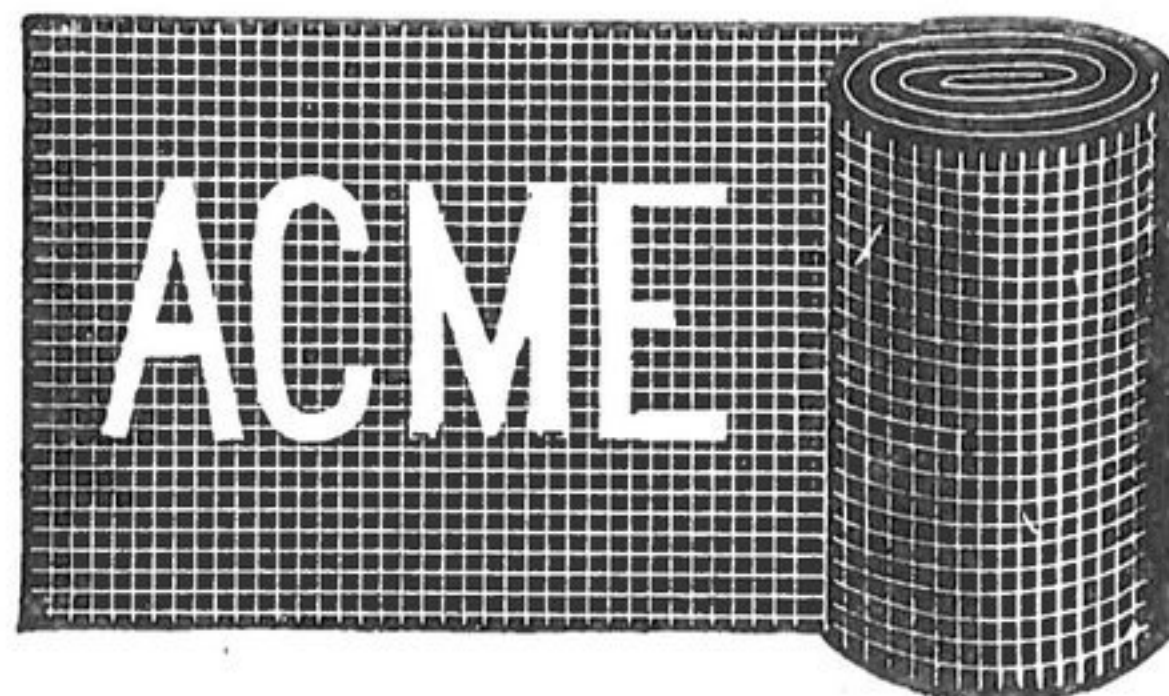


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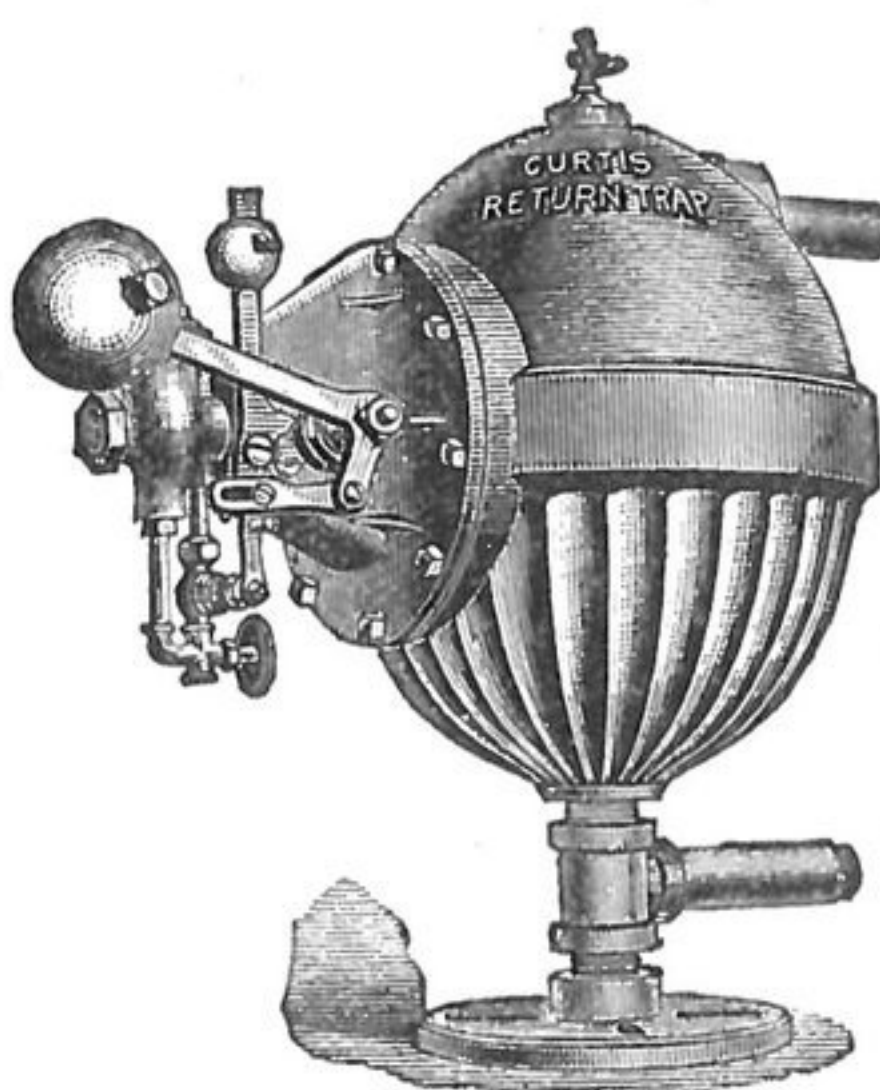
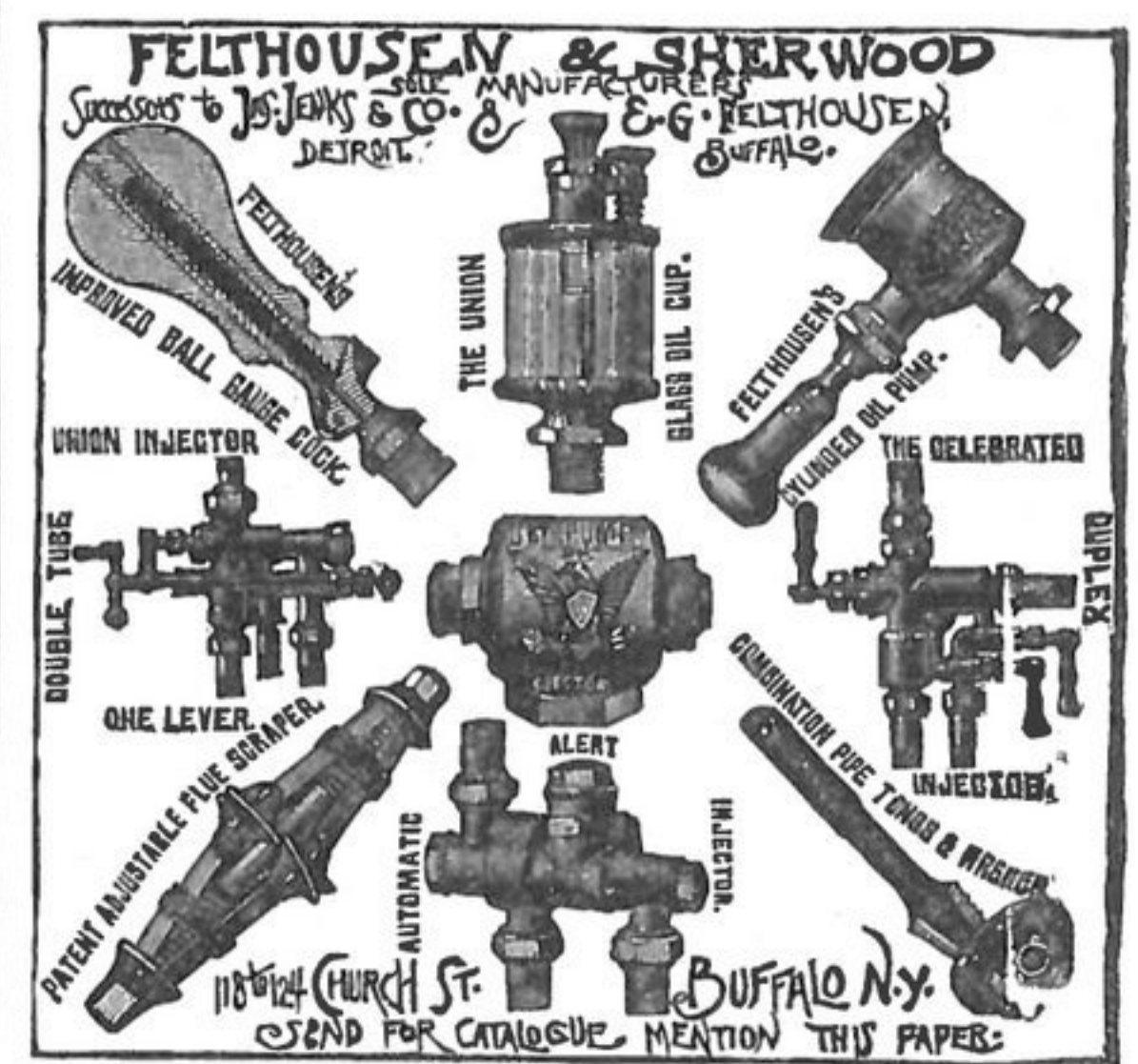
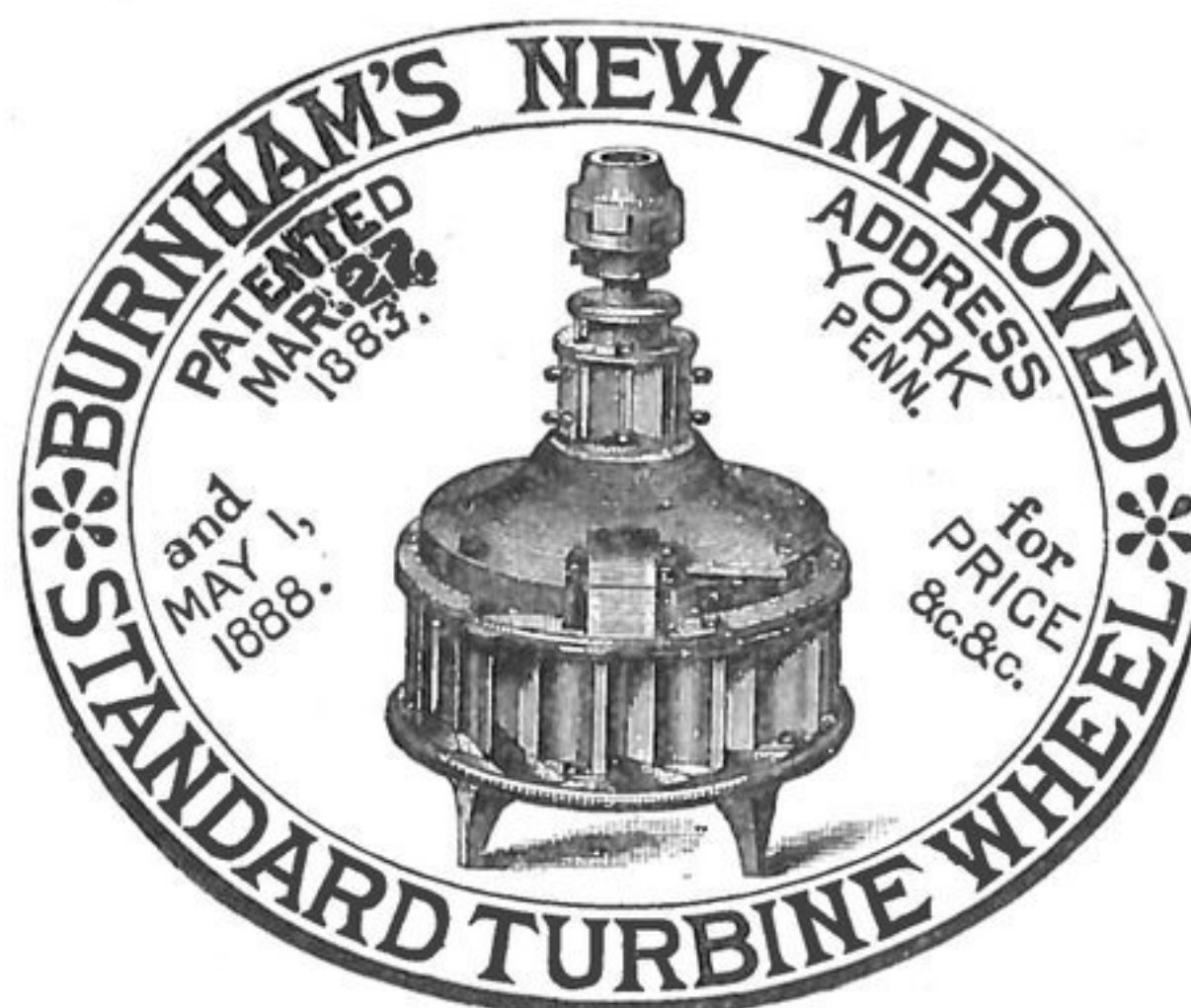


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OFFICE OF THE MILLING WORLD,
BUFFALO, N. Y., March 30, 1889.

On Friday of last week the markets showed a renewed activity and excitement. The May shorts in Chicago could find little wheat for sale, except at an advance, and that fact, together with the Government report, making the crop of 1888 only 391,000,000 weighed bushels, against 416,000,000 measured bushels, panicked the shorts thoroughly. In Chicago the prices went up 4c. all along the months, March closing at \$1.01½, April \$1.02½c, May at \$1.03½ and June at 98¾c. In New York the advance was only 1c, March closing at 92¾c., April at 92½c., May at 93½c. and June at 94½c. New York options 6,500,000 bushels. Exporters did considerable business. March corn ruled at 42¼c. and oats at 30¾c. Trade in both was small. Wheat flour was unchanged in price, but better in tone. The minor lines were featureless.

On Saturday the markets were again stronger but less active. In Chicago the excitement continued. The opening of May wheat in that market was \$1.04½, the highest point for the day \$1.07½ and the closing \$1.04½. The bulls were aided by dry weather reports from the West. In New York May wheat closed at 93¼c., June at 94c. and March at 91¼c. Options 10,000,000 bushels. March corn closed at 42¾c. and oats at 30¾c. Wheat flour was in better demand for home trade at unchanged prices. Exporters did nothing. The minor lines were featureless.

On Monday there was a break in wheat, caused by the announcement that Portugal had imposed a higher duty with the view of shutting out American wheat. The effect was prompt and positive. In New York March wheat opened at 91¼c. and closed at 89½c., and May closed at 90¾c. Options 13,520,000 bushels. In Chicago March closed at 98¾c., April at 99¾c. and May at \$1.01. March corn closed at 42¾c. and oats at 31c. Wheat flour was at a standstill, in sympathy with the break in wheat. The other lines were quiet.

On Tuesday, in consequence of selling by bears and realizing by longs, wheat was again depressed. In New York March wheat sold to 89¾c., April to 89¼c., May to 90¾c. and June to 91¼c. at closing. Options 9,240,000 bushels. In Chicago March closed at 99¼c., April at \$1.01¼ and May at \$1.01½. March corn closed at 42¾c. and oats at 31c. Wheat flour was dull with wheat. The minor lines were quiet. The visible supply in the United States and Canada was:

| | 1889. | 1888. | 1887. |
|-------------|----------------------|----------------------|----------------------|
| Wheat..... | March 23. 30,233,812 | March 25. 35,437,544 | March 25. 52,411,694 |
| Corn..... | 17,051,473 | 9,244,854 | 17,368,518 |
| Oats..... | 7,338,423 | 4,081,272 | 3,987,075 |
| Rye..... | 1,569,718 | 355,589 | 582,825 |
| Barley..... | 1,602,934 | 2,010,482 | 1,431,216 |

On Wednesday wheat was again lower on bear selling, despite dry-weather reports from the wheat States and a snowstorm in Kansas. In New York March wheat closed at 89½c., May at 90¾c. and June at 91½c. Options 13,568,000 bushels. In Chicago March closed at 99½c., April at 99½c. and May at \$1.01½. March corn closed at 42c. and oats at 31c. Wheat flour was dull and unchanged, with everybody holding off. The minor lines were dull and unchanged.

On Thursday continued heavy liquidation dragged wheat down another peg. In New York March opened at 89¼c. and closed at 88¾c. April closed at 88¾c., May at 89¾c. and June at 90¾c. Options 16,000,000 bushels. In Chicago March closed at 99½c., April at \$1.00½, and May at \$1.01½. One depressing influence

was the report of the suicide of Ferdinand Van Der Talen, a heavy grain-dealer in Antwerp, who had failed for \$1,600,000. The New York houses holding his wheat sold heavily and helped to break the market. March corn closed at 42¾c. and oats at 31c. Trade in both was small. Buckwheat grain was 50c. Rye grain was in good export demand, at 55½c. in car lots on track, 57½c. in elevator for January and 58½c. afloat. Barley was weak at 65½c. for Canada, 67½c. for 2-rowed and the same for 6-rowed State. Malt was dead and unquoted. Mill-feed was dull at the following quotations: 40-lbs, 70@77½; 60-lbs, 70@72½c; 80-lbs, 70@75c; 100-lbs, 77½@90c, including sharps, and 77½@80c. for rye; screenings, 50@80c; oil meal, \$1.45@1.50; cotton meal, \$1.25@1.28; barley, 90c.

Wheat flour was dull and depressed. There were no offers for any grades. Red Dog was offered by cable as low as \$1.75. One shipper in New York said; "That was the lowest price I ever offered it at, and not accepted, because the price of corn is so low that corn bread is taking the place of low-grade wheat flours both abroad and here, and our millers have not taken this into account." Following are the quotations:

| SPRING FLOUR. | | |
|------------------|-------------|-------------|
| | Sacks. | Barrels. |
| No grade..... | \$1.65@1.90 | \$....@.... |
| Fine..... | 1.90@2.15 | 2.25@2.55 |
| Superfine..... | 2.40@2.85 | 2.95@3.00 |
| Extra No. 2..... | 2.95@3.10 | 3.10@3.25 |
| Extra No. 1..... | 3.30@3.80 | 3.40@3.80 |
| Clear..... | 3.50@4.30 | 3.95@4.45 |
| Straight..... | 4.70@5.20 | 5.20@5.45 |
| Patent..... | 5.30@6.55 | 5.80@6.55 |

| WINTER FLOUR. | | |
|------------------|-------------|-------------|
| | Sacks. | Barrels. |
| No grade..... | \$1.65@2.00 | \$....@.... |
| Fine..... | 2.35@2.60 | 2.55@2.75 |
| Superfine..... | 3.85@3.00 | 3.05@3.20 |
| Extra No. 2..... | 3.15@3.30 | 3.40@3.60 |
| Extra No. 1..... | 3.50@4.50 | 4.75@5.25 |
| Clear..... | 3.95@4.35 | 4.25@4.65 |
| Straight..... | 4.75@4.95 | 4.75@5.25 |
| Patent..... | 4.90@5.25 | 5.05@5.70 |

| CITY MILLS. | | |
|-------------------|--|-------------|
| W. I. grades..... | | \$4.55@4.70 |
| Low grades..... | | 2.05@2.45 |
| Patents..... | | 5.45@2.45 |

Rye flour was dull at \$2.65@2.90 for common to choice brands. Buckwheat flour was dull and irregular at \$1.25@1.50 for the whole range. Corn products were in fair demand at the following quotations: Coarse meal, 80@83c; fine yellow and white 95c@1.00; Brandywine and Sagamore \$2.85; Western and Southern in barrels \$2.70@2.80; do coarse and fine in sacks 75c @ \$1.10; grits \$2.40@2.50.

BUFFALO MARKETS.

The local market for hard wheat remains decidedly quiet, not a single sale being reported. Chicago May opened at \$1.01½, advanced to \$1.04½, again declined to \$1.01½ and closed at \$1.04. Curb May, however, sold up to \$1.06 and closed at \$1.05. There was a tip out that May would sell at \$1.10 to-morrow and at the close everybody seemed to get orders to buy. Limits here were as follows: Old in store 82c. over; on track 81c.; new 23½c.; No. 1 Northern, 10c.; and No. 2 Northern 4c. over Chicago May. Old No. 1 hard closed nominally at \$1.36 in store and at \$1.35 on track; new No. 1 hard at \$1.26½ and No. 2 do at \$1.08. Apparently there was no demand for red winter wheat. Limits for both red and white remain at 6c. over Detroit for both red and white. The only sales reported were four carloads No. 1 white at \$1.08½. At the above mentioned limit No. 2 red closed at \$1.02½, the difference in price between the two grades being 1½c. The inquiry for corn was moderate while prices were steady; supply limited. Chicago May closed at 35½c., a decline of ¼c. from the closing price on Thursday. Sales were 5 carloads No. 3 at 36½c, 4 do do at 36½, 10 do No. 2 and 15 No. 3 were forced of the track on p. t. The market for oats was also very quiet, No. 2 white being irregular. Sales including 1 carload at 30¾c. 1 do do at 31c, and 2 do do at 31¼c; No. 3 white quoted at 29½@30c and No. 2 mixed at 28½c on track; white State from wagons 84@35c. A little better feeling was reported for barley; but the market was quotably unchanged; sales 1,500 bu No. 1 at 68c. and 2 carloads

No. 3 extra at 62c. MILLFEED—The demand for millfeed was moderate at a declined of 25c per ton. Coarse spring brand, \$18.75; medium do do, \$18.50; coarse winter bran, \$14.25; medium do do \$14.25; coarse middling, \$13.50; medium do, \$13.75; choice white middlings, \$15.25; find do do, \$14.75; medium do do, \$14.25. No. 2 Western rye continues dull and nominal a 53c. FLOUR—City ground—Patent spring, \$7.25@7.50; straight Duluth spring, \$6.50@6.75; bakers' spring, best, \$6.00@6.25; pat nt do rye mixture \$5.25@5.50; winter \$7.00@7.25; straight winter \$5.75@6.00; clear winter \$5.50@5.75; cracker \$5.50@5.75; graham \$5.50@5.75; low grade \$3.00@4.25; rye 3.50@3.75 per bbl; buckwheat \$2.50 per cwt. OATMEAL—Akron \$6.00; Western \$5.75 per bbl; rolled oats in cases, 72 lbs, \$3.25. CORNMEAL—Coarse, 80c.; fine 85c.; granulated \$1.50 per cwt.

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All the legends agree that it was a vast island, of inexhaustible resources, and inhabited by a race of superior people. For ages this island has existed only in legendary lore. But now, when the light of modern research is turned full upon the investigation, behold the lost Atlantis at our very doors.

So the bigoted medical fraternity goes groping about in the dark. If they would investigate, they would behold the lost Atlantis at their very door. They experiment and dose with their injurious drugs, and with no person or laws to hold them accountable, they continue their bigoted, unjustified practice, staring into vacancy, imagining that they see in themselves an Esculapius.

Wrapped in ancient bigotry, they denounce any new idea advanced by a layman or an opposition school as a fraud.

Why?

Because humanity will not be benefited? Not at all, but because their specialism did not make the discovery.

Yet they concede that there is no remedy known to their materia medica that will cure an advanced kidney malady and the diseases arising therefrom—although many of them know from crowning proof that Warner's Safe Cure will—but unscrupulously treat symptoms and call them a disease, when in reality they know they are but symptoms.

A few of the more honest physicians admit that Warner's Safe Cure is a valuable remedy, and a great blessing to mankind, but say, in so many words, when asked why they do not prescribe it, that they cannot, according to their code. The late eminent physician and writer, Dr. J. G. Holland, published in "Scribner's Monthly," and showed his opinion of such bigotry, and no doubt was satisfied that Atlantis might possibly be discovered in a proprietary medicine, when he wrote editorial, as follows:

"Nevertheless, it is a fact that many of the best proprietary medicines of the day were more successful than many of the physicians, and most of them, it should be remembered, were first discovered or used in actual medical practice. When, however, any shrewd person, knowing their virtue, and foreseeing their popularity, secures and advertises them, then, in the opinion, of the bigoted, all virtue went out of them."

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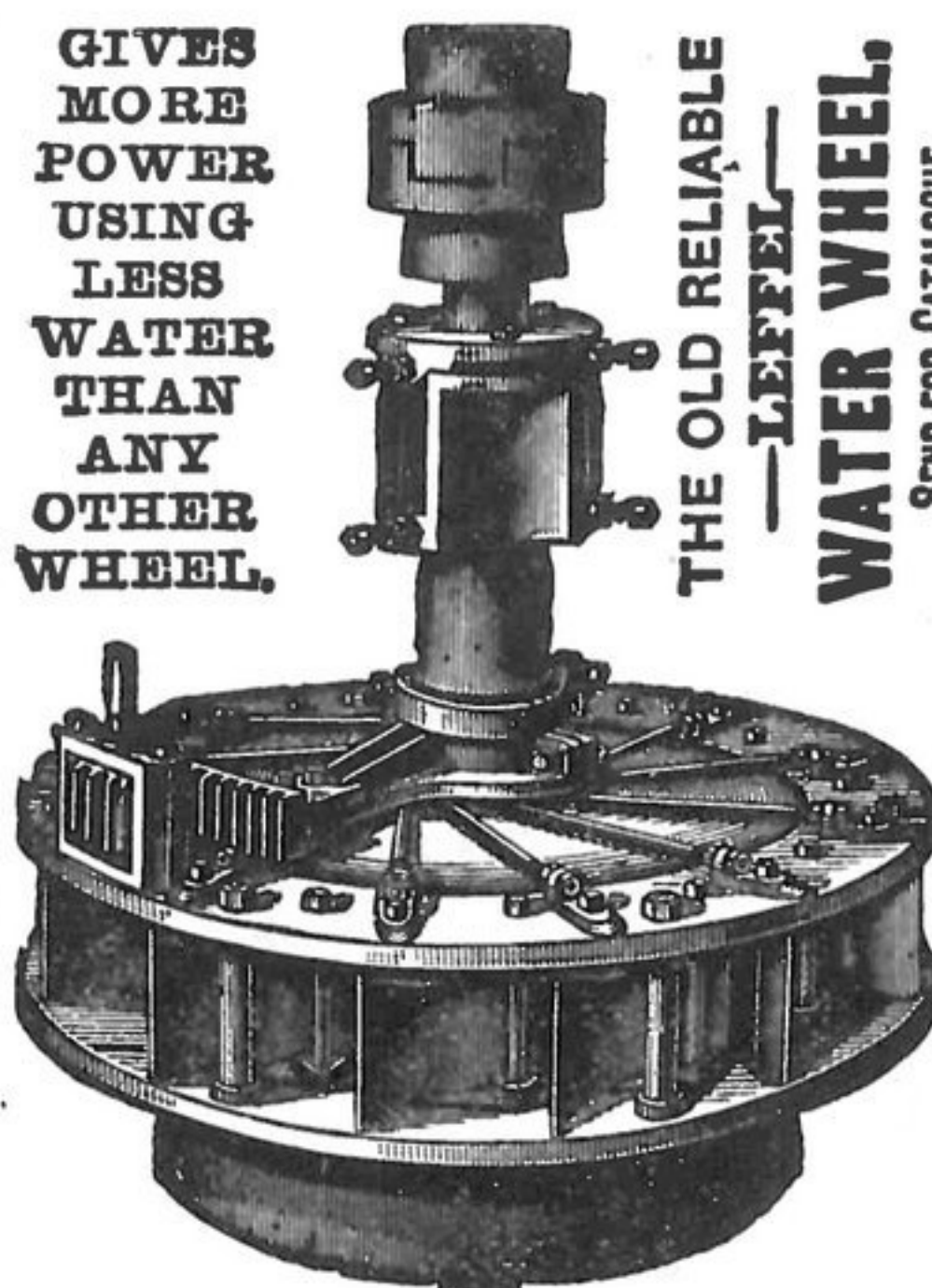
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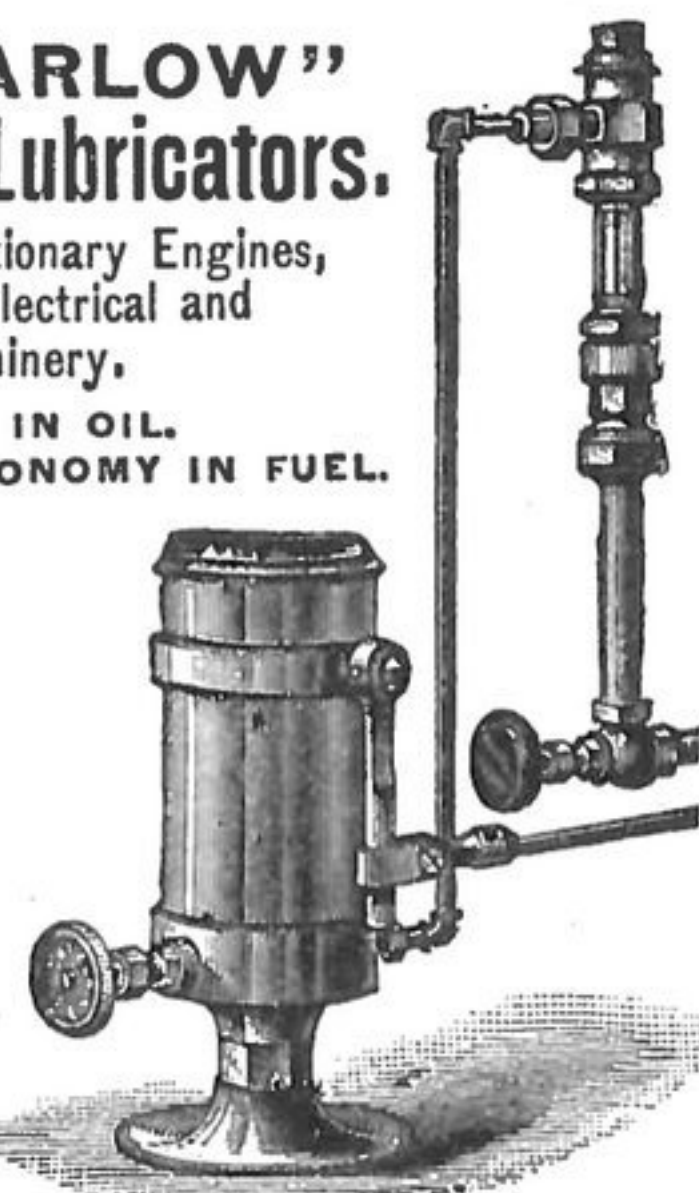
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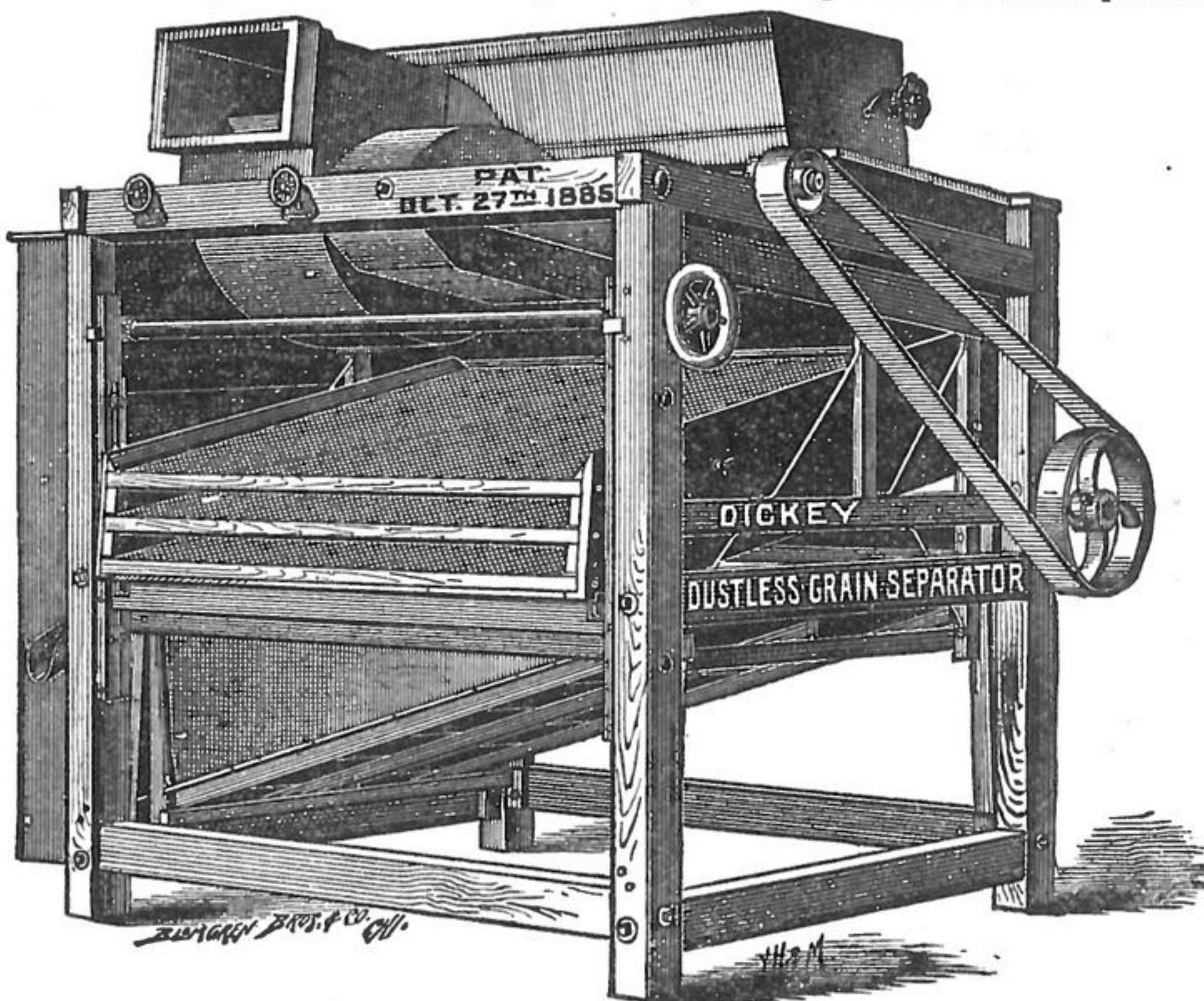
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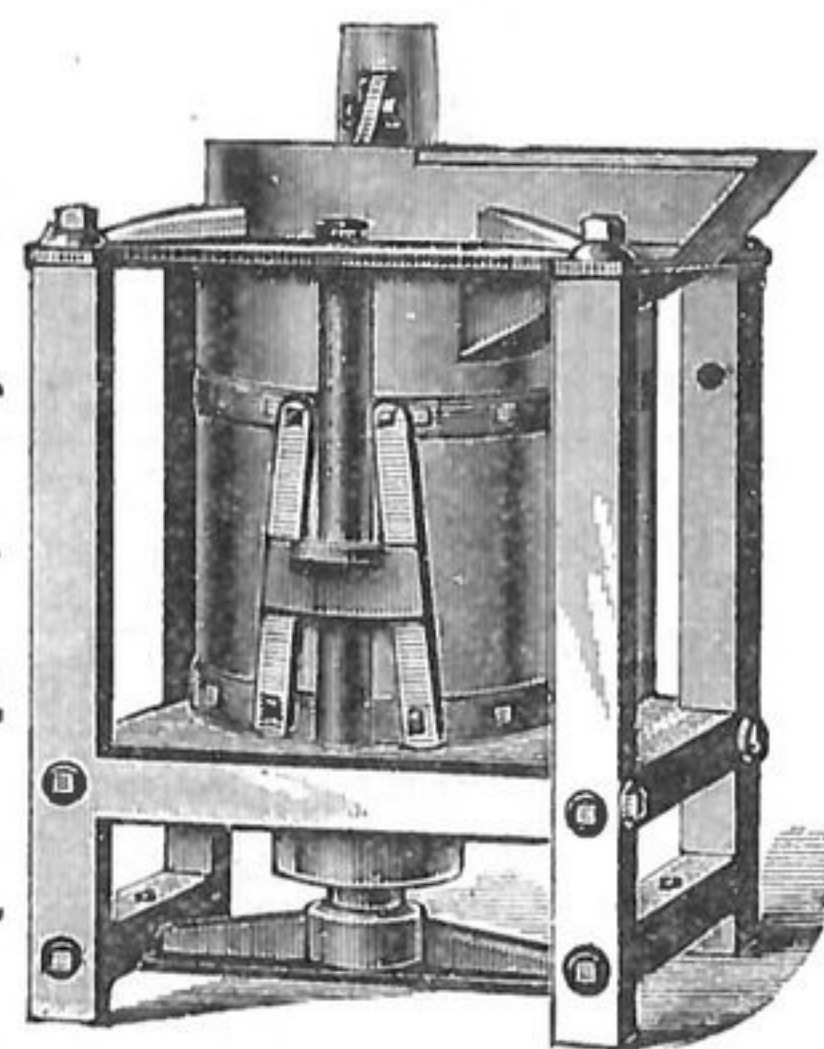
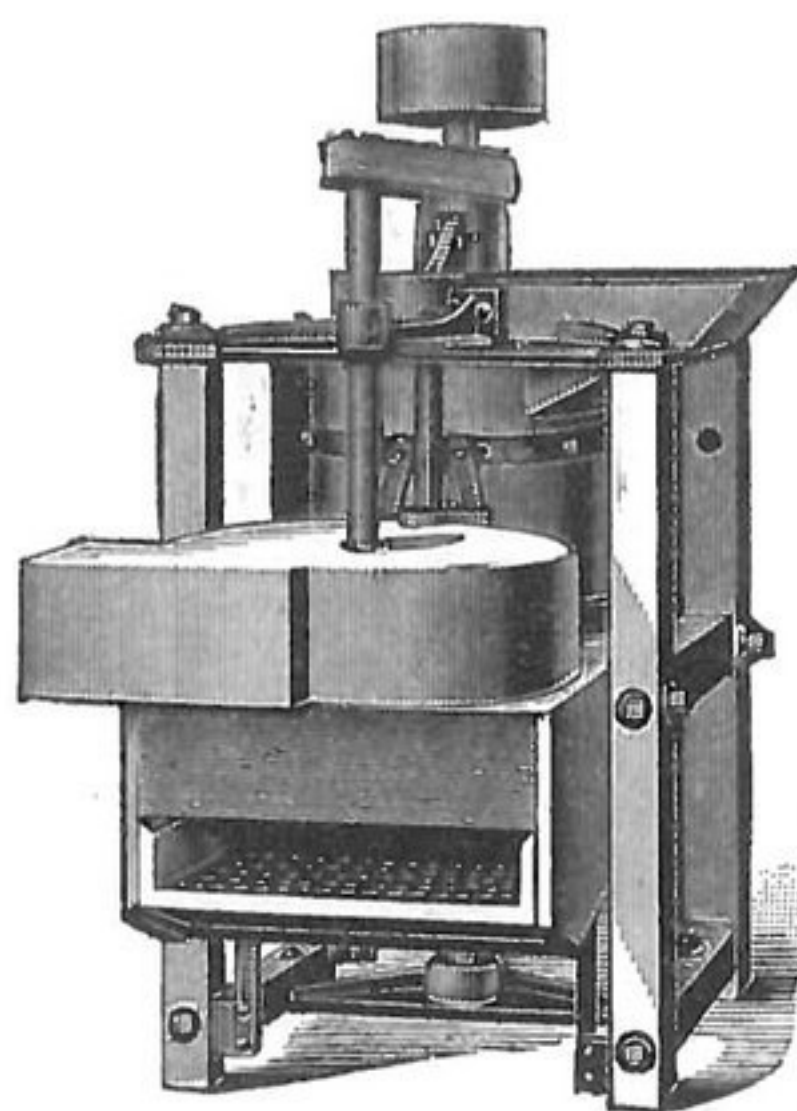
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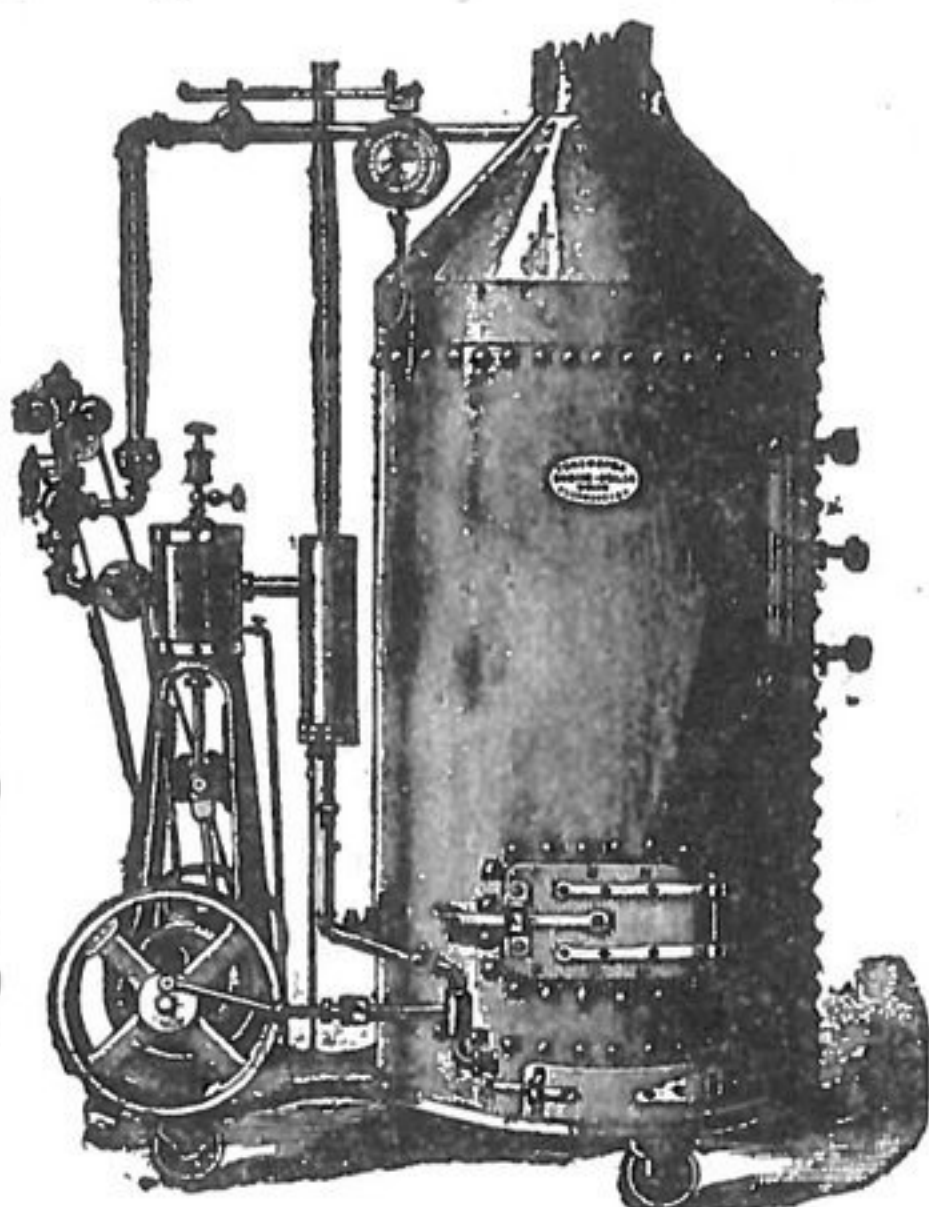
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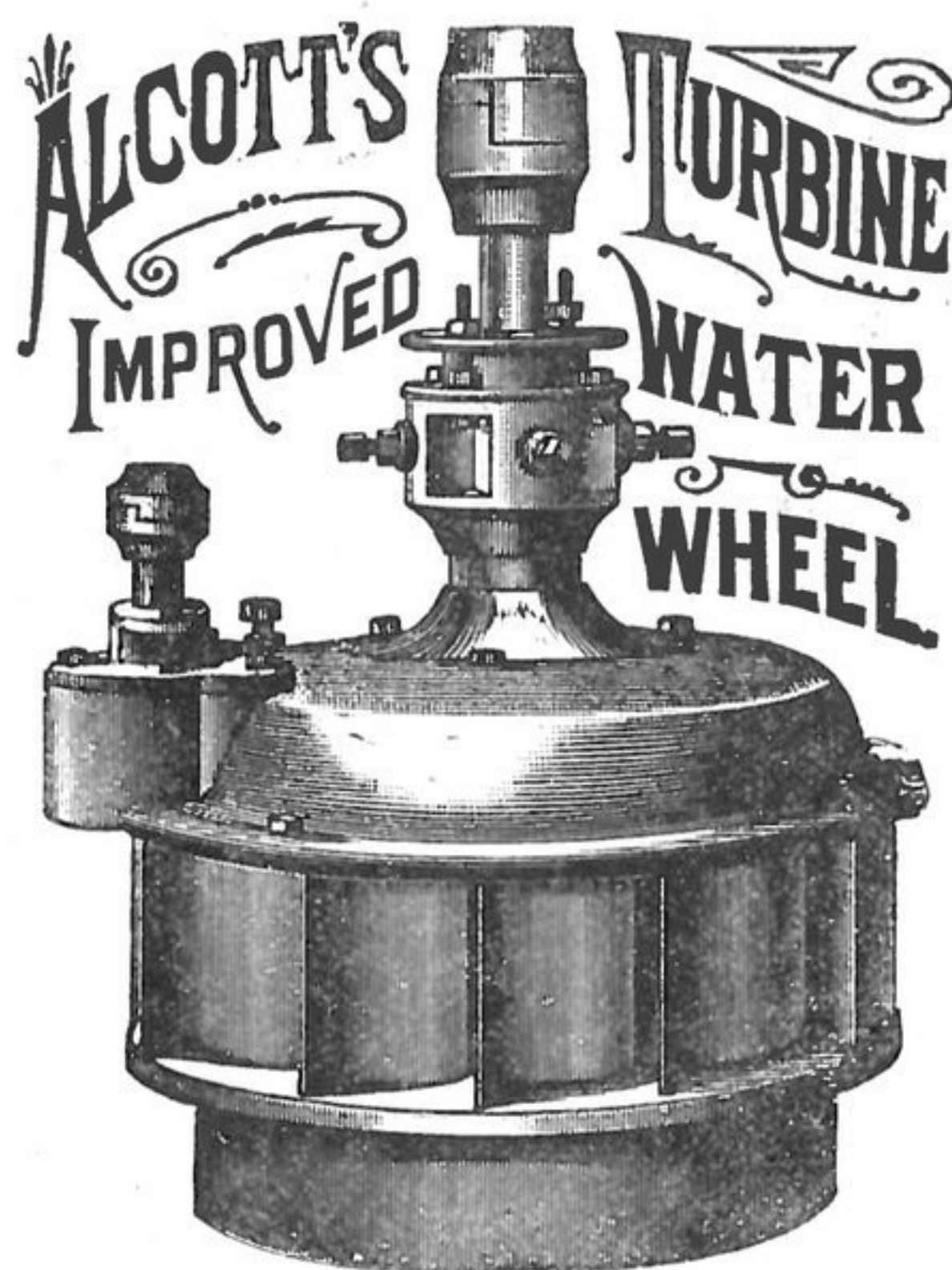
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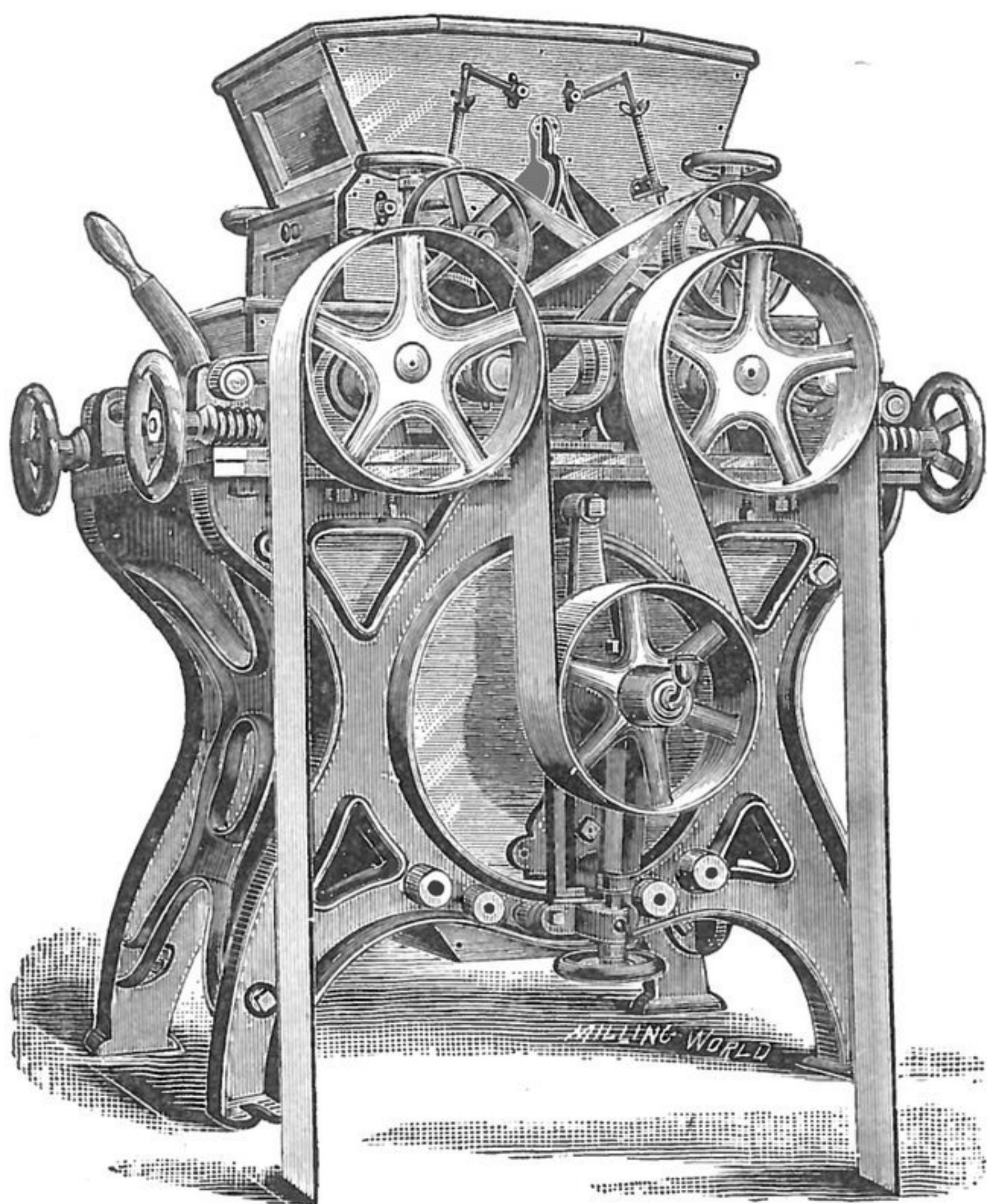
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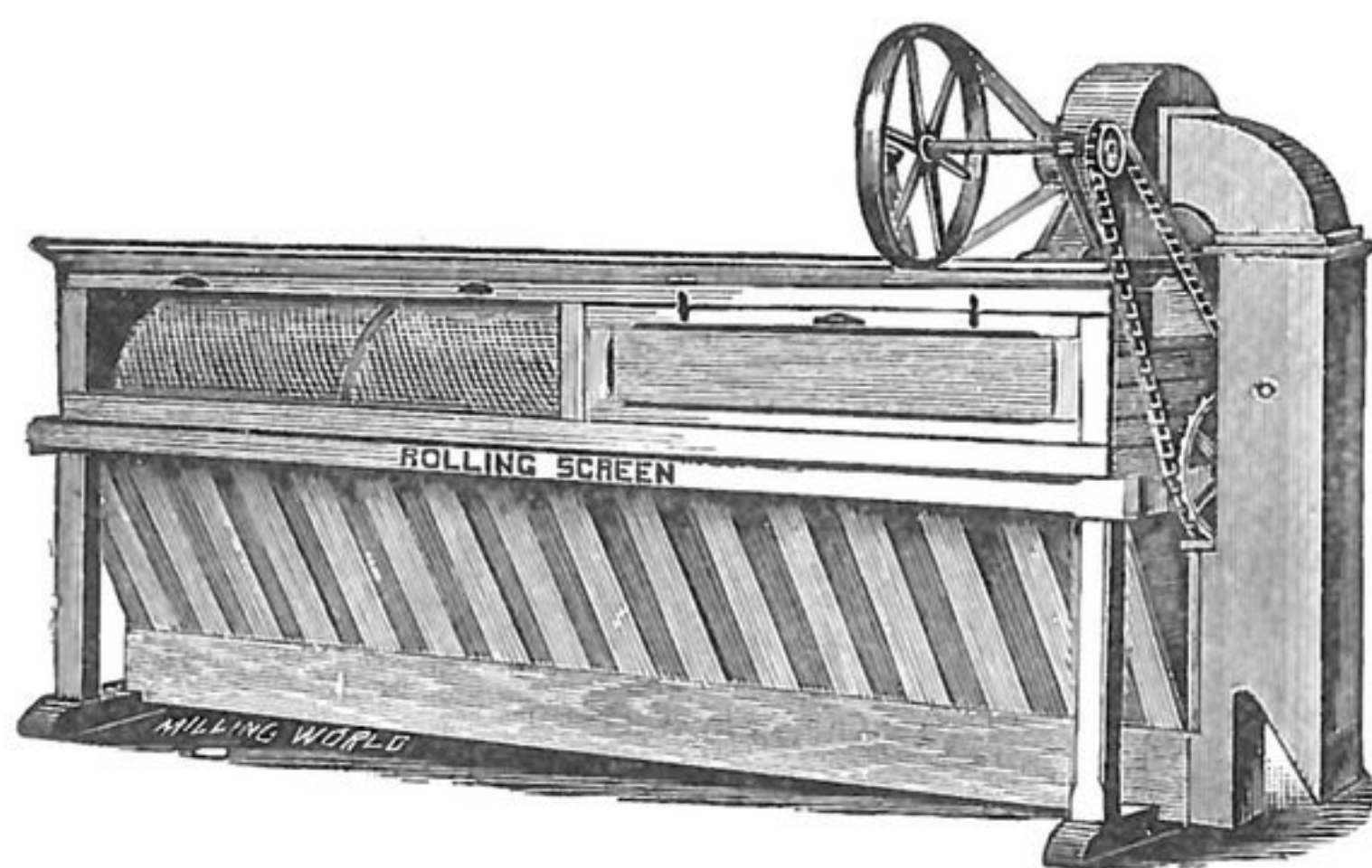
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6x12 inch.

6x18 inch.

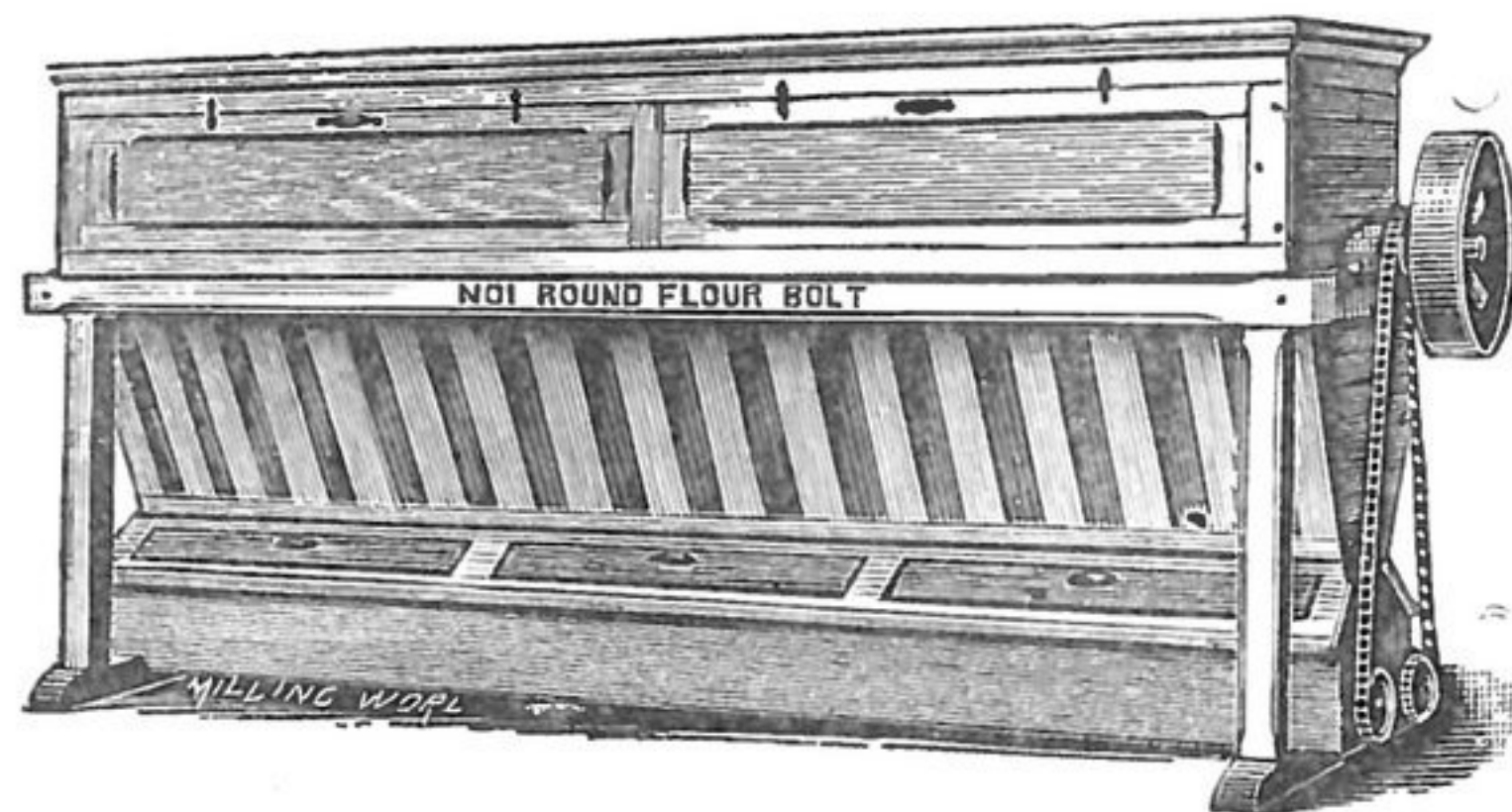
6x15 "

6x20 "

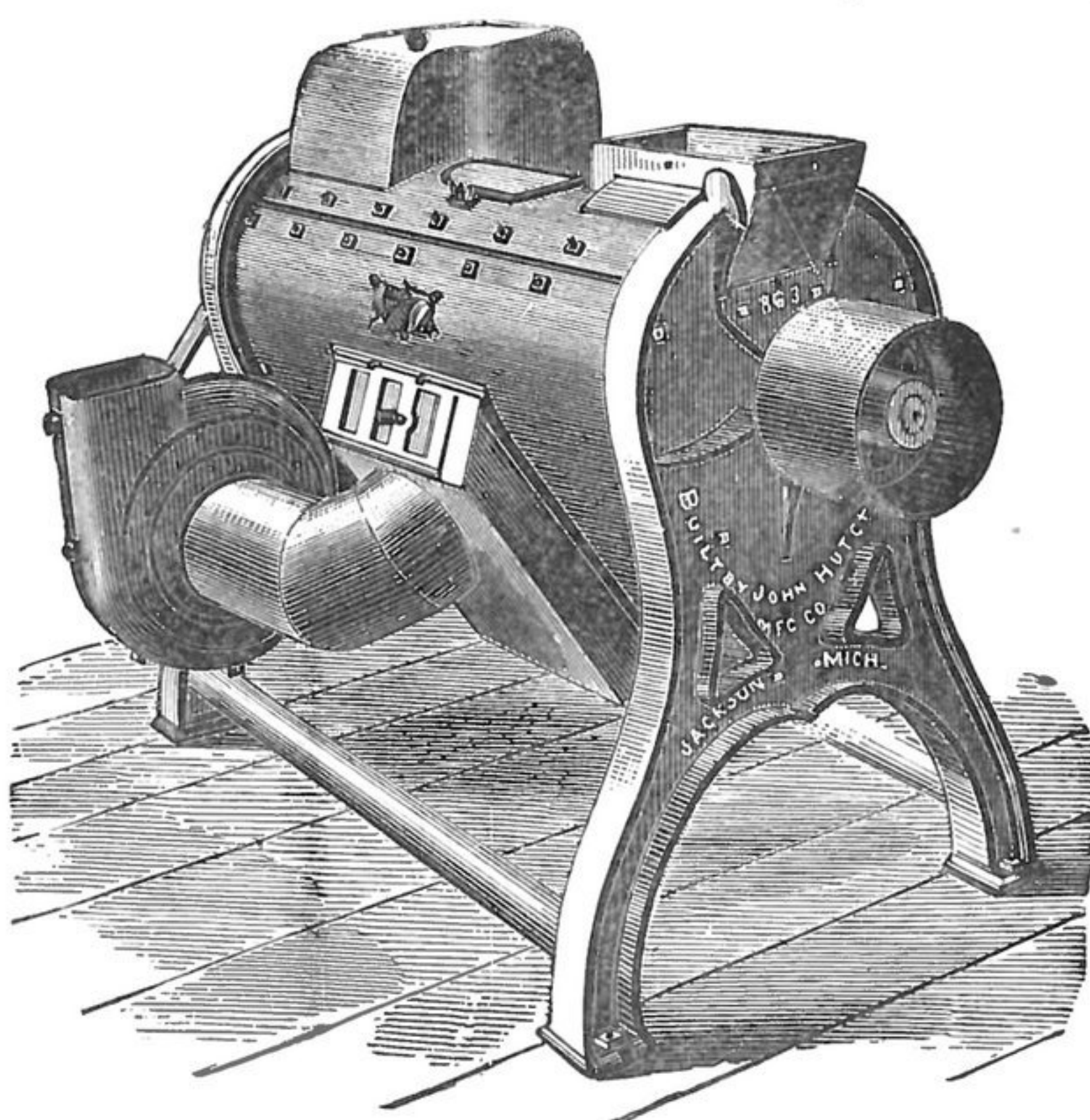


The above cut represents our New Rolling Screen, which is absolutely dustless and has as much scouring qualities as any two scouring machines now being made.

Send for Estimates for Our Full Roller Mills of any Capacity.



The above cut shows our New Round Slow Running Flour Bolt. We also build a Cylinder or Round Scalping Reel and we have lately built a number of new mills of medium capacity, using our Roller Mills, our Round Flour Bolts and Scalping Reels, getting better results than is usually obtained.



Hutchison's New Dustless Iron Corn Sheller, especially adapted for Mill and Elevator use.

—:ADDRESS ALL CORRESPONDENCE TO:—

John Hutchison Mfg. Co.

JACKSON, MICHIGAN.

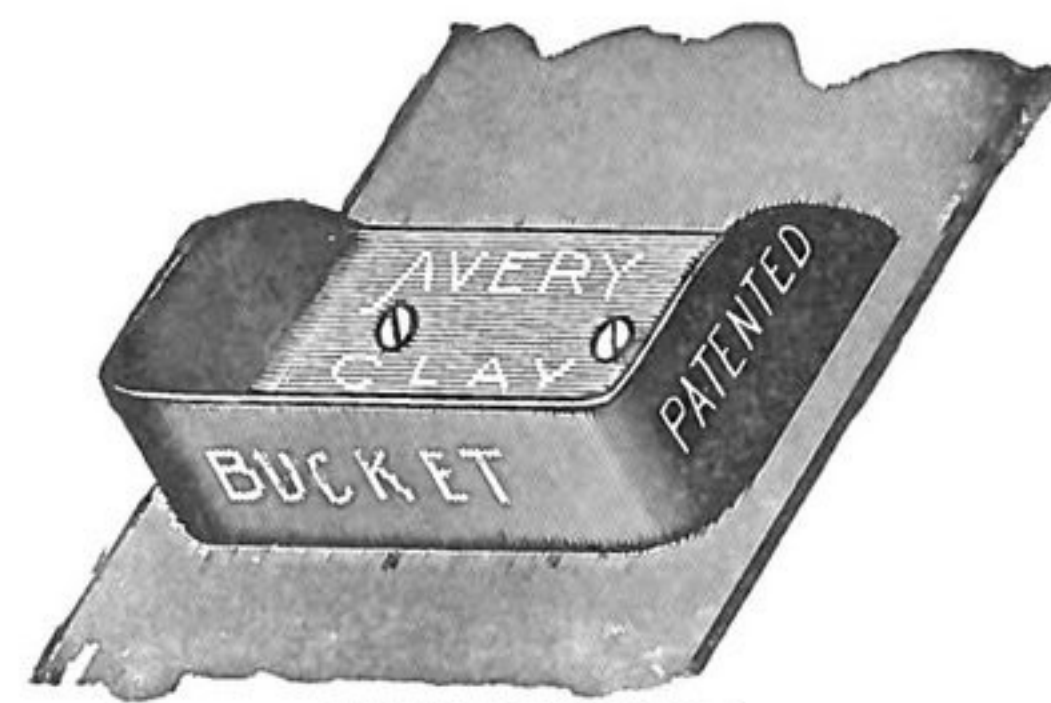


ELEVATOR BUCKET.

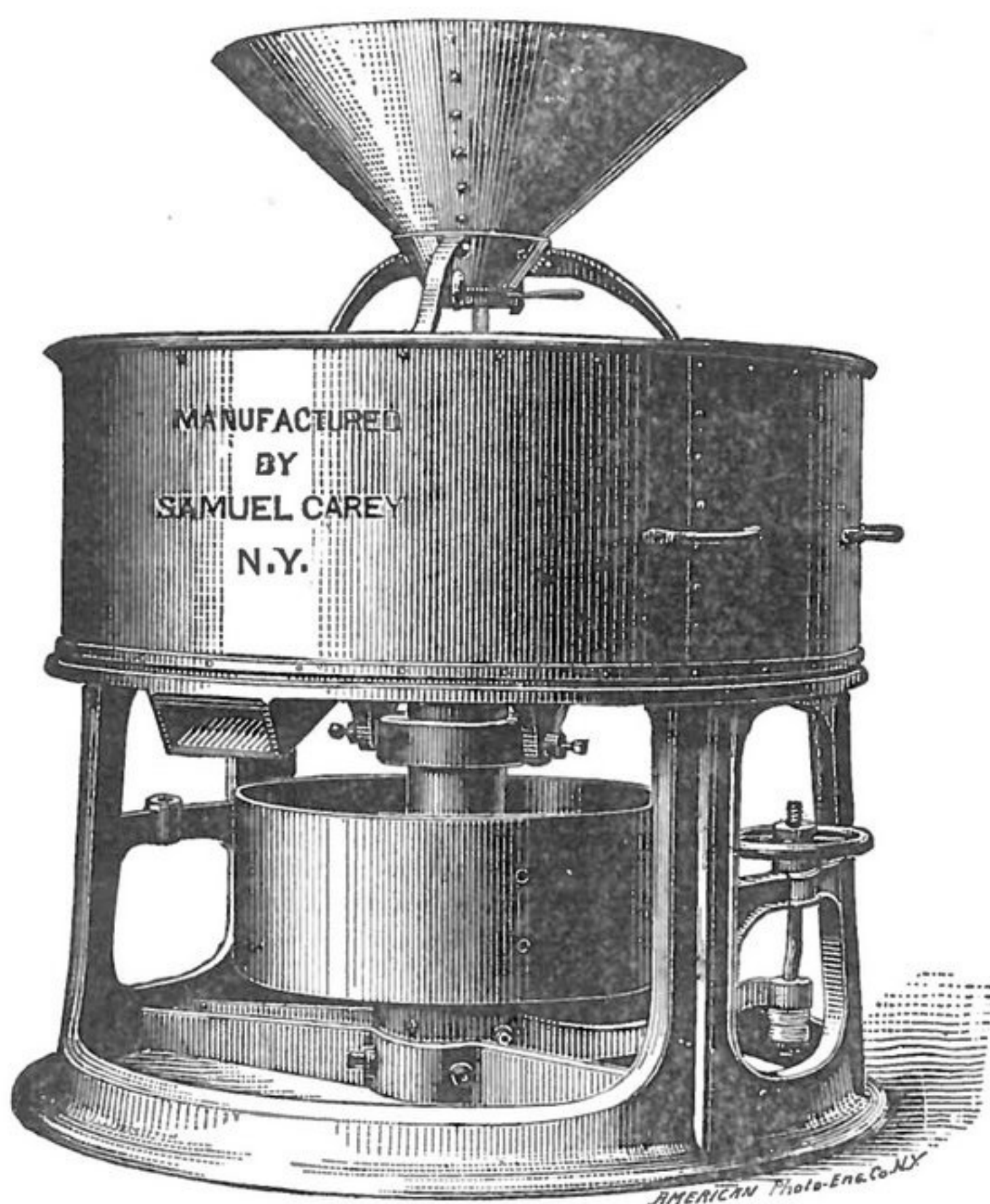
PLEASE NOTICE.

Our patents not only cover Seamless, Drawn, Stamped, Pressed or Forged Elevator Buckets; but also Pre-Date and Cover Round-Cornered Elevator Buckets when made Seamless, and are the Only patents ever issued in the World for a Pressed, Stamped, Drawn or Forged Seamless Elevator Bucket.

THE AVERY STAMPING CO.,
Successors to The Avery Elevator Bucket Co.,
Cleveland, Ohio, U. S. A.



CLAY BUCKET.



SELF-TRAMMING PORTABLE MILL

BEST GRINDING MILL MADE.

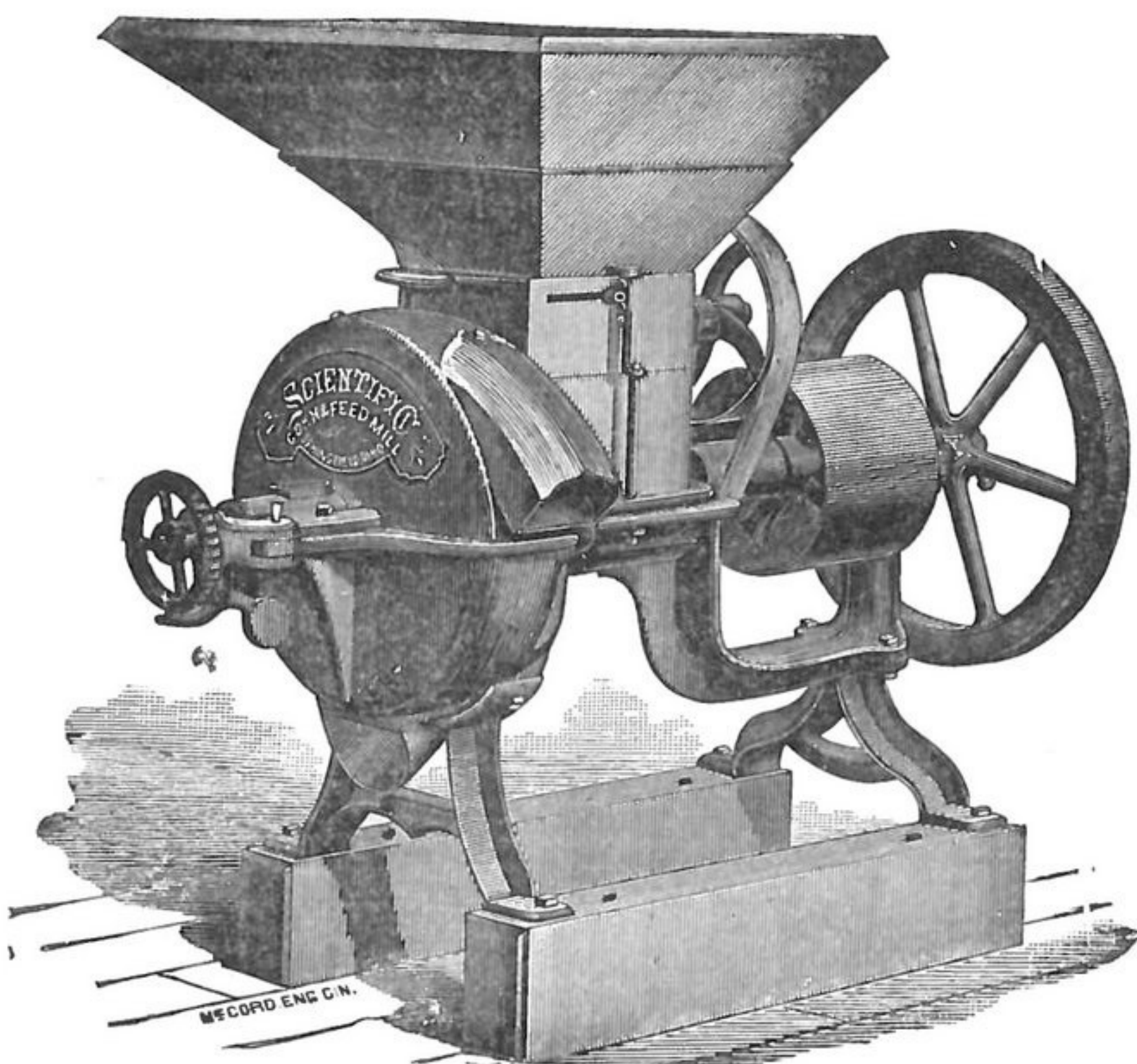
BOLTING CLOTH

WRITE FOR DISCOUNTS.

BURR MILLSTONES CHEAP.

Send for "SPECIAL PRICES," Giving Size
Wanted, to

SAMUEL CAREY, 17 BROADWAY, NEW YORK



THE SCIENTIFIC GRINDING MILL.

POSITIVELY THE BEST MILL ON EARTH.

GRINDS PERFECTLY, EAR CORN, SHELLLED CORN,
AND ALL GRAINS.

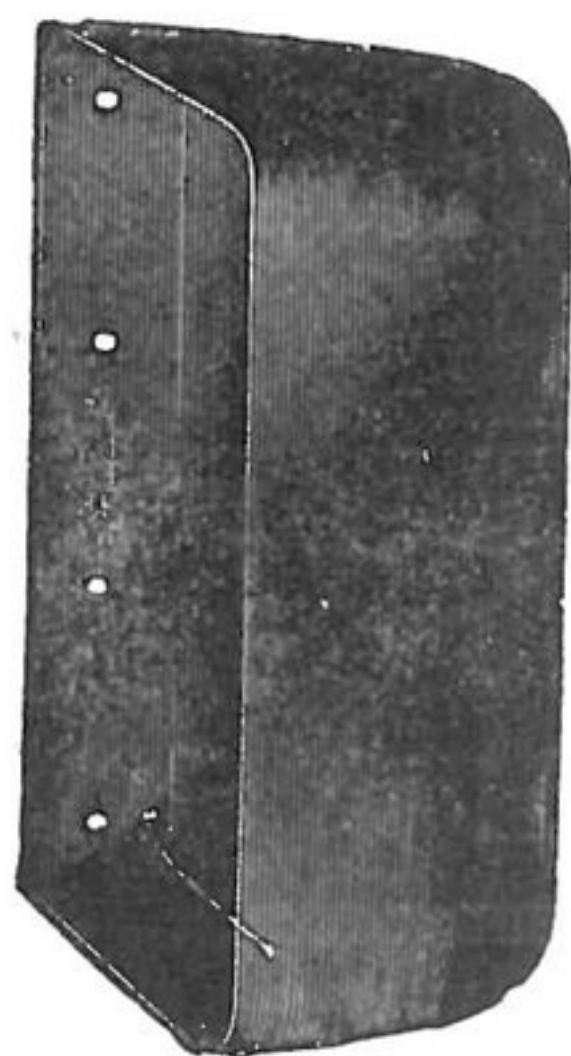
GRINDING PLATES A SPECIAL METAL

*Hard as Steel, Guaranteed to Grind from Five to Eight
Thousand Bushels before wearing out.*

SEND FOR ILLUSTRATED CATALOGUE, PRICES, ETC.

THE FOOS MFG. CO.

SPRINGFIELD OHIO.

STILL ON TOP.

Perhaps the **HIGHEST COMPLIMENT** that could be paid the "Salem" bucket is the fact that during the past few years ITS SHAPE HAS BEEN SO CLOSELY IMITATED by other manufacturers as to infringe our patented rights, but experience reveals the **IMPERFECTIONS OF IMITATIONS**, and we therefore take it as a **FURTHER COMPLIMENT** to the "SALEM" bucket that some of its old patrons who were *Induced to Try the Imitations* have now *Returned to the Salem Bucket, thereby Acknowledging it to be the Most Satisfactory.* Don't be deceived by other makes of buckets that are claimed to be "Just as Good." Insist upon having the **ORIGINAL AND RELIABLE SALEM BUCKET.** All legitimate Salem buckets are plainly marked with the word

SALEM

W. J. CLARK & CO., SOLE Manufacturers **SALEM, OHIO.**

THORNBURGH & GLESSNER, General Agents, CHICAGO, ILL.